VISIONARY REALISM AND THE EMERGENCE OF A EUDAIMENTIC SOCIETY: METATHEORY IN A TIME OF METACRISIS

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Signed Declaration

I, Nicholas H. Hedlund, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

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Abstract

This thesis aims to support the conditions for the emergence of a eudaimonistic, free-flourishing planetary society by helping ignite the potentials of metatheory as a transformational cultural force vis-à-vis our complex twenty-first century challenges. I argue that metatheory in its appropriate form provides indispensable intellectual scaffolding for the crucial psycho-spiritual, cultural, and social transformations demanded by these interconnected global challenges, or what I call the metacrisis. I advance these aims, first, by reflection on the nature, role, and function of metatheory in geo-historical context, articulating a vision for the revindication of metatheory as integrative metatheory 2.0; and, second, the development of the contours of a particular metatheory through an exploratory-dialogical encounter between what are arguably amongst the most comprehensive and sophisticated integrative metatheories arising in the wake of postmodernism: namely, critical realism, founded by Roy Bhaskar (1944–2014), and integral theory, founded by Ken Wilber (1949–). Thus, in this thesis, I deploy the methodology of hermeneutical dialectics and the method of immanent critique to forge a non-preservative synthesis of aspects of these two metatheories into a new metatheory—a visionary realism—that might help us to better understand and wisely respond to the metacrisis. I then apply this visionary realist framework to sketch the contours of the metacrisis at large, analyzing and synthesizing the philosophical, cultural, and psychological aspects of the metacrisis to identify key principles and holistic solution patterns that may inform deliberate social transformation.

Impact Statement

The framework developed in this thesis, visionary realism, can be intellectually and socially beneficial by offering a big-picture understanding of the reality of the world, identifying the root causes of our complex contemporary crises (i.e., the metacrisis), and articulating transformative potentials for a more eco-socially sustainable, ethically just, and existentially meaningful future. This thesis aims to be impactful at a foundational level of social transformation, contributing principles that can potentially underlabour for a more flourishing planetary society. Drawing on sociological studies of the history of philosophy and culture, it is argued that metatheories are the most powerful causal forces and leverage points for transforming worldviews, and in turn, social systems. This research thereby explores the causal roots of the metacrisis in the modern Western worldview and the metatheories from which it was forged. Visionary realism offers an alternative and potential resolution of the fundamental cultural problem fields of modernity, articulating principles to inform a new worldview.

As an integrative metatheory, visionary realism can be applied to any discipline or field, including community and organizational development, politics, economics, climate change, psychology, research, and education. Of these, it may most clearly have a beneficial impact in research and education. Articulating key principles for new forms of inter- and transdisciplinary research, visionary realism can foster coherence and integration in the face of the complexity of
contemporary problems. A visionary realist approach to research and education can likewise undermine the post-truth culture and associated institutional decay by offering a realist alternative that can revindicate a strong notion of truth, inclusive of epistemic relativity. Thus, this thesis can be of beneficial impact for effective dialogue and judgmental rationality in the face of widespread disagreement and polarization in the public sphere. Visionary realism also lays the ground for a new science of interiority, wherein the human and social sciences could reclaim their purchase on objective knowledge, with far-reaching implications. Moreover, visionary realism articulates a philosophy of education that cuts across disciplines, emphasizes the developmental dimension of education and the educational conditions for social emancipation, integrates knowledge and wisdom, and assumes a role of visionary participation that is aimed at collective flourishing. Such an integrative approach can help to influence the future of scholarship and education (including research methodology, pedagogy, and curriculum), especially in philosophy and the social sciences. The beneficial contributions of this thesis could be catalyzed, in addition to the traditional mediums such as academic journals and books, through applied collaborations between academics and non-academics that demonstrate advantageous results in addressing complex, real-world problems. The impact of this research could also be emboldened by the dissemination of key ideas through popular books, as well through media such as podcasts and documentary films. Ultimately, the principles developed in this research have the potential to ripple through culture and social systems, improving our relationship to our fellow humans and to the imperiled ecological systems upon which we depend for our survival.

**Key Words**

Metatheory; Philosophy of Science; Philosophy of Social Science; Social Theory; Ontology; Epistemology; Critical Realism; Integral Theory; Worldviews; Reflexivity; Climate Change; Metacrisis; Transformation; Eudaimonistic Society; Alethic Resonance; Visionary Realism.
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Some chapters of this thesis are based on (though not identical to) publications in various peer-reviewed academic journals and books (anthologies):

**Chapter 1:** Based on parts of:


**Chapter 2:** Based on parts of:


**Chapters 3 and 4:** Based on parts of:


And:

Chapter 6: Based on parts of:

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5 See www.ucl.ac.uk/ioe/departments-and-centres/centres/development-education-research-centre
contribute to addressing the world’s ‘grand challenges,’ in resonance with the argument I make in this thesis. The aspects of UCL’s vision to “transform how the world is understood, how knowledge is created and shared and the way that global problems are solved,” in tandem with its mission to engage with the wider world to change it for the “long-term benefit of humanity,” are expressed as an overarching orientation for UCL at large, as well as developed directly through the UCL Global Citizenship Programme, to “explore the biggest global challenges.” It is my hope that this thesis, in expounding the more general notion of integrative metatheory, as well as its inflection in the particular form of visionary realism, can contribute something to the future development of such a eudaimonistic philosophy of education, at UCL and beyond. Furthermore, I would also like to thank UCL Professor Emeritus Nicholas Maxwell for his inspiring work in global philosophy and education, and particularly for his emphasis on the need to explicitly thematize big-picture knowledge, wisdom, ethics, and flourishing as necessary for the rationality of education.

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6 See [www.ucl.ac.uk/2034/vision](http://www.ucl.ac.uk/2034/vision)
7 See [www.ucl.ac.uk/2034/mission](http://www.ucl.ac.uk/2034/mission)
8 See [www.ucl.ac.uk/global-citizenship-programme/](http://www.ucl.ac.uk/global-citizenship-programme/)
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CHAPTER 1—Introduction: On the Deep Need for Metatheory in a Time of Metacrisis

Never before have the global stakes been so high, never before has the need for planet-wide decision-making, for big-picture explanations and solutions been so pressing. Never before has human society, as a single entity, been required to develop a coherent global approach to dealing with the challenges that now confront it.

Markus Molz and Mark Edwards

A crucial function of contemporary metatheories is to address the great social, global, and ecological crises of our time. Our species and our planet are imperilled, and effective metatheories can help us to navigate these perils to avert the very real prospect of ecological and civilization collapse.

Roger Walsh

We live in a world ridden by staggeringly complex and increasingly urgent planetary problems.

If ever there was a critically decisive, numinous, and opportune moment in human history—a Kairos, as the ancient Greeks would have it—this is it. The twenty-first century is a radical new era, unprecedented in human geo-history, marked by exponential change and deep and complexly interrelated global crises: ecological, technological, economic, political, cultural, ethical, epistemic, and spiritual, to name but some of pertinence. On the one hand, these complex problems or crises present grave dangers that command a gravitas of wildly existential proportions, including the rational possibilities of social collapse (or even human extinction)

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9 Molz & Edwards, 2013, p. 2
10 Walsh, 2016, p. xvii
11 For the definition of ‘complex’ deployed in this thesis, see Appendix Five ‘Glossary of Key Terms.’
12 See Appendix Five ‘Glossary of Key Terms’ and Chapter 6 for a definition and further discussion of the idea of Kairos, respectively.
13 Bhaskar (2016a, p. 204) articulates the crisis on all planes of social being: ecological, ethical, economic, and existential. The topology of these crises and their interrelationships is delineated in more depth in Chapter 6.
14 It is worth noting that there are numerous historical instances of ‘apocalyptic’ thought concerning notions of ‘the end times,’ social collapse, or the extinction of humanity, including a ‘millennial frenzy’ in 1000 CE, apocalyptic interpretations surrounding the American Revolution, the ‘Y2K bug’ around the year 2000, to name but a few. However, these claims are largely rooted in mythic-literal modes of faith (Fowler, 1981) and Judeo-Christian apocalyptic theology and eschatology—and none of them had a solid rational-scientific basis in a large body of peer-reviewed literature. So while some seek to deflate the claim that we are confronting the possibility of some form of social collapse in the twenty-first century by arguing that many generations have believed they were living in the ‘end times,’ never before have such claims been grounded in an exceedingly robust body of scientific
within the twenty-first century (see e.g., Bendell, 2018; Bhaskar, 1986/2009; Brown, 2008; Eisenstein, 2018; Hartwig, 2015; Kelly, 2010; Morin & Kern, 1999; Patten, 2018; Stein, 2019a; Walsh, 1984, 2016; Wilber, 1995). The possibility of our own imminent demise, due to circumstances entirely of our own making (Walsh, 1984; Wilber, 1995), is almost unfathomably overwhelming—if not existentially inscrutable—to truly contemplate and take in emotionally and intellectually. Yet our global crises simultaneously summon our very best and brightest collective potentials, as they are likewise offering up immense evolutionary opportunities for rethinking humanity’s purpose and place in an evolving universe, re-weaving the very fabric of human civilization, and unleashing an unprecedented epoch of socio-ecological flourishing.\footnote{Following climate scientist Mike Hulme’s (2009) arguments, complex planetary problems of the twenty-first century, particularly climate change, are opportunities to clarify and evolve humanity’s self-understanding and identity—the ultimate meaning and purpose of the human project. They are creative catalysts for the deeper cultural, psychological, and spiritual transformations that are needed for humanity to flourish in reciprocal resonance with nature. Indeed, humanity stands at an existential crossroads: our collective intelligence and creativity as humans will either transform the constructed systems of our social world (e.g., financial, economic, political, technological) towards alignment and resonance with the reality of our planetary boundaries (Rockström et al., 2009; Steffen et al., 2015b) to birth ‘the more beautiful world our hearts know is possible’ (Eisenstein, 2013), or we will squander our chances and veer evidence (see e.g., IPCC, 1990; IPCC, 1995, 2013, 2014b, 2018, 2021; Lenton et al., 2019; Rockström et al., 2009; Steffen et al., 2011; Steffen et al., 2015b; Steffen et al., 2018).}

\footnote{As Molz and Edwards (2013) put it, “The possibilities for responding to the planetary challenges, and the implication of those responses, are extreme and they stretch out between a vision for and acceptance of a profound deepening of planetary potentials and a life-destroying, fear-laden rejection of the realities that demand our attention” (p. 2).}
down a dark and uncharted path towards a dystopian future. This thesis is an exploration of some of the deeper philosophical, cultural, psychological, and spiritual dimensions of this decisive collective choice-point at the heart of the crises we face.

*The State of the World: Metacrisis and Planetary Phase Shift*

As we enter the third decade of the twenty-first century, the state of our world is marked by unprecedented conditions of radical complexity and increasing existential risk. Our complex planetary crises are not only occurring simultaneously but are also overlapping and deeply causally interrelated and entangled. Due to their profound interdependencies and feedback loops, these complex and intractable crises cannot be adequately understood or addressed in isolation, but rather can best be understood as systemic symptoms of a deeper network of causal forces—a singular interwoven socio-ecological crisis, or what I call the *metacrisis.* Thus, the metacrisis refers to the deep and complexly interrelated global crises—ecological, technological, political-economic, ethical, existential, and epistemic—and their underlying network of overlapping root causes.

I coined the notion of metacrisis with Sean Esbjörn-Hargens in 2015 (Hedlund et al., 2016) to express the complex unity or concatenated nature of our twenty-first century planetary crises,

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17 There are, of course, many possible ‘grey’ pathways for humanity in which we could bear witness to varying degrees of simultaneous destruction and regeneration, and many related feedback loops could emerge. For example, it could be that we see major catastrophic events and systemic failures that become drivers and opportunities for systems redesign. See Patten (2018) for discussion of similar dynamics.

18 See Appendix Five ‘Glossary of Key Terms’ and Chapter 6 for a definition and further delineation of the metacrisis, respectively.

19 While this term was first published—and in that sense ‘coined’—in the 2016 co-authored introduction by me, Sean Esbjörn-Hargens, Mervyn Hartwig, and Roy Bhaskar, the concept was actually forged, to be precise, by myself.
due to their systemic nature and overlapping root causes. Since 2016, the notion of the metacrisis (or ‘meta-crisis’) seems to have caught the winds of the zeitgeist, gaining fairly widespread appeal (see e.g., Adnan, 2020; Björkman, 2019; Davey, 2020; Feenstra, 2020; Franks, 2020; Hall, 2020; J. D. Johnson, 2020a, 2020b; Morris, 2020; Niederhauser, 2020; Patten, 2018, 2019; Rowson, 2017a, 2017b, 2017c, 2020, 2021; Rowson & Pascal, 2021; Smith, 2016, 2020; Stein, 2019b, 2019c; Sweeney, 2019; Williams, 2016) amongst certain metamodern intellectual niches (e.g., Game B, integral theory, metamodernism) and within the milieu of the loosely construed ‘intellectual dark web’ and ‘intellectual deep web’ scene of academics, para-academics, and digital content creators (podcasters and YouTube broadcasters). The notion of the metacrisis delineated in this thesis builds on my prior articulation with my co-authors, while deploying the resources of visionary realism to elaborate the concept in more depth. To understand our world situation—and the necessity of the notion of metacrisis to adequately construe it—a synoptic overview of our present crises is needed.

The period between 2000 and 2050 has been and will be a time of rapid and unprecedented world systems transformation (Stein, 2019b; Wallerstein, 2004)—a critical transition—driven by deep and complexly interrelated global crises: ecological, technological, political-economic, ethical, existential, and epistemic. Each of these profound and complexly interrelated global

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with the help of Sean Esbjörn-Hargens in 2015. Our introduction was shared with the participants of the Critical Realism & Integral Theory Symposium prior to the 2015 Integral Theory Conference at Sonoma State University in the San Francisco Bay Area, and had already made its way into the discourse at the conference in 2015.

20 Jonathan Rowson, in particular, through his work at the RSA and, more recently, Perspectiva, has contributed important reflections and inflections vis-à-vis the notion of the “meta-crisis” (Rowson, 2017a, 2017b, 2017c, 2021; Rowson & Pascal, 2021), as has Zachary Stein (2019a, 2019b). Notable podcasts and YouTube channels engaged, in some sense, with the idea of the metacrisis include: Emerge, Rebel Wisdom, the Jim Rutt Show, the Stoa, The Side View, State of Emergence, Parallax, the Dark Horse, Collective Insights, Future Fossils, Mutations, and Future Thinkers, to name some.
crises is listed below, along with a non-comprehensive inventory of notable component problems (or crises), many of which overlap:

**Ecological Crisis:**
- Climate Change
- Deforestation
- Biodiversity Loss/Species Extinction (‘the sixth mass extinction’)
- Desertification
- Disruption of Biogeochemical Flows
- Topsoil Loss
- Depletion of Aquifers
- Ocean Acidification, Warming, Plasticification
- Overfishing/Aquatic Ecosystems Collapse
- Stratospheric Ozone Depletion
- Bioaccumulation of Toxins in Food Chain
- Endocrine Disruption/Loss of Fertility
- Overpopulation
- Overconsumption of Resources
- Overshoot of Ecological Carrying Capacity
- Non-Engineered Anthropogenic Pandemics

**Technological Crisis:**
- Non-Aligned Artificial Intelligence
- Genetic Engineering (e.g., CRISPR)
- Nuclear War and Pollution
- Engineered Pandemics
- Exponential Technology

**Political-Economic Crisis:**
- Perverse Incentives/’Tragedy of the Commons’
- Debt-Based Financial Systems
- Poverty
- Starvation/Malnutrition
- Decline of Democracy/Rise of Authoritarianism
- Consolidation of Corporate Power
- Rise of Ethno-Nationalist Movements
- Hybrid Warfare
- Terrorism (domestic and foreign)

**Ethical Crisis:**
- Wealth Inequality
- Income Inequality
- Racial Injustice
- Gender Inequality
- Abuse of Animals
- Homophobia
- Anomie (decay of moral and social solidarity)
Existential Crisis:
- Alienation
- Mass Shootings
- Opioid Crisis and Addiction Epidemics
- Suicide Epidemics
- Mental Health Epidemics
- Decline in Well-Being
- Exhaustion
- Disenchantment (lack of deep meaning and purpose)

Epistemic Crisis:
- Post-Truth Culture
- Social Media Driven Cultural Decay
- Epistemic Closure and Tribalism
- Social Media Driven Cultural and Political Polarization
- Mis/Disinformation and Fake News (including ‘deep fakes’)
- Bots and Trolls
- Memetic Warfare
- Decreased Attention Spans (and memory)
- Cognitive and Emotional Underdevelopment
- Rise of Extremism
- Consolidation of Corporate Media Ownership
- Legitimacy Crisis of Epistemic Authority
- Inadequate Education and Failing Schools

I have coded these 58 problems into these six categorical crises, which were then thematically coded into four primary crises or aspects of the metacrisis: eco-social (ecological, technological, political-economic); ethical; existential; and epistemic. I have also identified an arguably central issue for each crisis, as well as a more contestable exemplary manifestation: with the eco-social crisis, the central issue is unsustainability, while climate change is its exemplary manifestation; the central issue of the ethical crisis is inequality, while the exemplary manifestation is wealth inequality; the existential crisis is centrally about alienation, as exemplified in the phenomenon of mass shootings; and finally the epistemic crisis centres around the post-truth culture, with social media driven cultural decay as its exemplar. This analysis is a kind of ‘descriptive coding’
qualitative method (N. H. Hedlund-de Witt, 2013d; Saldaña, 2016). See Figure 1 for an overview of the metacrisis.

![Figure 1: The Metacrisis](image)

Even through the course of writing this PhD thesis, there has been a marked quickening of ecological degradation, an exponential acceleration of technological innovation that has transformed the structure of our information ecology, a sense of ever more entrenched political polarization and institutional decay, an atmosphere of psychological and cultural unravelling, a compounding predicament of profound epistemic confusion and chaos—and the
glimmers of a new world on the edge of the horizon that has yet to dawn. In the period surrounding the election of Donald J. Trump as president of the United States in 2016, the world crisis actualized itself at a whole new level, generally moving from the more abstract, conceptual stratosphere of high theory to the ground level of direct experience and inexorable impact on the lives of all. As I will delineate below, the four aspects of the metacrisis—eco-social, ethical, existential, and epistemic—have all kicked in at a new level of concreteness and intensity, packing a notable punch that relentlessly undercuts our attempts to deny (whether explicit or stealth), dissociate, or otherwise defend against its causal powers. In this way it is becoming increasingly clear that our attempts to double down on our defensive posturing only deepen the problem—emboldening the resurgence of repressed realities and therefore pushing us closer towards the edge.

*The Eco-Social Crisis*

The eco-social crisis is composed of interrelated ecological, technological, and political-economic crises. Beginning with the ecological crisis, a careful and critical scientific review of the state of the world reveals a planet undergoing rapid and potentially catastrophic ecological changes, many of which are or may soon become irreversible, at great consequence to the prospects of the future of human civilization and complex life on Earth. In a well-known article in the journal *Nature*, Rockström et al. (2009) defined nine interlinked planetary boundaries in the Earth system. According to the associated Stockholm Resilience Centre’s ‘Planetary

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21 What follows is an exemplary and synoptic, not comprehensive, discussion of the four aspects of the metacrisis. See Appendix One for an unabridged discussion of these aspects of the metacrisis.

22 “Stealth denial” refers to when the basic facts of a phenomenon (e.g., climate change) are understood or accepted, but the full implications on the level of individual feelings, responsibility, and agency are not (Rowson, 2013).
Boundaries Framework,’ honouring the integrity of these boundaries would confer ‘a safe operating space for humanity.’ As of 2015, four of these nine biophysical thresholds have been overstepped, while two remain difficult to quantify, which means they too could potentially have been overstepped (see Figure 2) (Steffen et al., 2015b). These include the balance of the great biogeochemical cycles of the Earth system, which have been dramatically disrupted by human activities, perhaps most notably the carbon, phosphorous, and nitrogen cycles (Gruber & Galloway, 2008; Mackenzie et al., 2002). The former has led to changes in the global climate system and destabilized the generally favourable and stable conditions that humanity has enjoyed over the past 10,000 years of the Holocene epoch.

Figure 2: Nine Planetary Boundaries
(Credit: J. Lokrantz/Azote based on Steffen et al., 2015b)
According to the increasingly certain assessments of the United Nations Intergovernmental Panel on Climate Change (IPCC) (IPCC, 1990, 1995, 2000, 2014a, 2014b, 2018, 2021), a Nobel Prize winning panel of the world’s leading climate scientists who review and synthesize all of the peer-reviewed science on the topic, global climate change is “unequivocally” anthropogenic (IPCC, 2021) and poses a serious, deleterious threat to human health, security, economic prosperity, and even the very fabric of civilization as we have known it. At the time of writing (2021), we have exceeded a concentration of 420 ppm CO₂ in the atmosphere (above the 350 ppm that many climate scientists argue is safe), a level last seen around 4 million years ago during the Pilocene epoch (Lenton et al., 2019), and are on a climate change trajectory that, in some respects, is more rapid and intense—in terms of observed key impacts—than some of the projective scenario models from the IPCC in years past (IPCC, 2000, 2014a, 2018, 2021; Rahmstorf et al., 2012).

The IPCC predicts (without major reductions in greenhouse gas emissions) global food shortages, the inundation of coastal cities by rising seas, and a refugee crisis the likes of which the world has never seen. Climate change means, in addition to massive sea-level rise and the loss of many low-lying coastal communities (e.g., in Florida and Bangladesh), an increasing onslaught of more frequent and intense extreme weather events, including hurricanes/typhoons/cyclones, tornadoes, floods, droughts, wildfires, winter storms, heat waves, etc. (IPCC, 2014a, 2021), all of which we have seen unprecedented and well-documented empirical instantiations of within the past decade.
The prospect of this intensifying barrage of extreme weather—not to mention sea level rise, increased risk of pandemics (which the IPCC has long warned of), and other factors—left unchecked, will almost certainly trigger a variety of gravely concerning socio-political events, including economic recession or worse, major global declines in agricultural yields and food production, scarcity of food and fresh water, disruptions to fragile global supply chains, and consequent increases in poverty, starvation, and malnutrition, vast numbers of climate refugees, refugee/immigration conflicts, increasing cultural tensions, vexing ethical dilemmas, deep social instability, and eventually geopolitical conflict and outright kinetic warfare (Mach et al., 2019).

It is particularly the second- and third-order effects, cascading from the extreme weather events, that are of concern. Here we can see the systemic interrelations between the ecological and political-economic crisis wherein changes in one sphere affect the other, and vice versa, in a bi-directional feedback loop. But in addition to the above geopolitical risks, the causal cascades and feedbacks of climate change may also disrupt the very foundations of the neoliberal capitalist economy and world system.

In addition to climate change and other biogeochemical disruptions, we have critically contaminated much of the planet’s water, air, and soil with persistent organic pollutants (POPs) from pesticides, heavy metals, industrial production, etc. (including dioxin and PCBs). Moreover, we are undergoing a human-driven loss of species known as the Sixth Mass Extinction, unparalleled since the time of the dinosaurs 65 million years ago. Other key
(interrelated) concerns include topsoil loss, deforestation, ocean warming, acidification, and plastification, overfishing and the collapse of aquatic ecosystems, loss of coral reef biodiversity hotspots, bioaccumulation of toxins (which threaten primarily mammals at the top of the food chain, namely us humans), endocrine disruption (and increased sterility), depletion of ground water and crucial fossil aquifers, and desertification—and all this while close to eight billion humans (as of 2021) continue to reproduce and consume natural resources at exponentially increasing rates.

Additionally, genetic engineering (including technologies such as CRISPR) as well as the development of future technologies, most notably artificial intelligence (particularly nefarious forms of it that are out of alignment with worldcentric human values and ethics) are likewise wildly high-stakes techno-optimist experiments to be considered as possible existential risks to humanity and possibly the biosphere.

Taken together, due primarily to the stress human activities have induced on the biosphere, we may have arrived at a critical threshold of structural instability—a global (socio)ecological bifurcation point (Abraham, 1994; Hedlund, 2003; Rutt, 2017; Wallerstein, 2004) and impending phase shift wherein the earth system as a whole “may either break down or break through to one of several new states of order” (Capra, 1996, p. 196). Such breakdowns would likely result in various dystopian trajectories, including various possibilities for existential catastrophe (Ord, 2020), while a breakthrough to an emergent higher-order regime or ‘basin of attraction’ would
systemically transcend the crucial contradictions and absences of the antecedent modernist world system, landing us in a new, metamodern world system.

*The Ethical Crisis*

Alongside the eco-social crisis, the *ethical crisis* has come to a head in recent years: income and wealth inequality have been exacerbated by the pandemic, and have risen to historically unprecedented levels. For example, the wealthiest 1% on the planet (those with $1 million USD or more) own 43.4% of the world’s wealth, while 53.6% of the world’s adult population (whose wealth amounts to less than $10,000 USD each) hold a mere 1.4% of the world’s wealth. And the situation is notably worse in some nation states, such as the United States, which exhibits greater disparity between rich and poor than any other major developed nation. And while some positive change has occurred in certain countries, extreme poverty, starvation, and access to certain resources and opportunities remains asymmetrically biased by enduring racism, sexism, homophobia, etc. Furthermore, dynamics of wealth inequality and corporate power have corrupted the media and politics in many nominal democracies to the point where they are teetering on the edge of oligarchy or neo-fascism (as appears to be the case in the United States, especially vis-à-vis former president Donald Trump and his followers), which in turn threatens to increase and solidify these inequalities. Finally, the irreverent killing of billions of animals each year through industrial factory farming begets deep moral questions about humanity’s relationship to other species. All this deepening inequality clearly cannot be justified

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from a normative standpoint and underscores the profound ethical crisis that we humans have ensnared ourselves in.

The Existential Crisis

In addition to the eco-social and ethical crises, we are faced with a deep-seated existential crisis: a widespread and increasing mood of psycho-spiritual exhaustion, overwhelm, alienation, disenchantment, depression, distraction, anomie, addiction, ennui, mental illness, suicide, loneliness, inner emptiness, and gluttony. This underbelly of the hyper-optimistic modern zeitgeist manifests itself in terms of observed decline in mental health, well-being, and life expectancy, and the increase in suicide, drug addiction, mass shootings, and general malaise. This existential crisis is arguably rooted in the sense of absence of deep meaning or overarching metanarratives that confer larger frames of significance and ultimate concern in life. This existential crisis, while pervasive in most Western societies, tends to be somewhat less obvious, as it is a kind of omnipresent background mood of late modernity—like water to the fish. It seems to fester in the subterranean underbelly while we go through the motions of our conventional, 9–5 lifestyles—the hedonic treadmill of alienated labour and nihilistic consumerism—until we hit a breaking point and it bubbles up to the surface.

This can be seen, for example, both literally and symbolically in both the opioid and mass shooting crises in the United States. In 2019 alone, 9.7 million Americans abused prescription pain relievers, while 49,860 died from using opioids, including synthetic opioids such as fentanyl and OxyContin that also generated billions for big pharmaceutical companies such as Purdue
Mass shootings have also been on the rise in the US, despite somewhat of a reprieve in 2020 due to the pandemic. In 2019 alone, there were 417 mass shootings in the US. At the time of writing in 2021, we are well on track for another record-breaking year of these public bloodbaths, which seem to be happening at a numbing frequency. These deadly shootings, while certainly amplified by weak gun-control laws in the US, are arguably symptomatic of a much deeper sense of desperation and existential crisis rooted in a widespread sense of meaninglessness endemic to the disenchanted late modern gaze—the ‘flatland’ worldview that sees the universe as a heap of meaningless matter scurrying about according to cold, mechanical laws described by natural science, devoid of any moral or spiritual order and sense of deeper purpose or intelligence. The manifestations of this existential crisis, such as mass shootings and the opioid crisis, cannot be adequately understood as isolated events, but rather are symptoms of a deeper structural malaise rooted in the absence of big-picture narratives of meaning-making that confer a sense of the sacred—awe, wonder, and the human purpose in an ensouled cosmos.

The Epistemic Crisis

In addition to the aforementioned facets of the metacrisis, our times carry the distinct signature of a radically disorienting and unprecedented epistemic crisis, wherein the processes by which we ought to generate adequate understanding of the eco-social, ethical, and existential crises and their underlying causes are all but broken: epistemic confusion and a sense of helplessness, radical cultural fragmentation, political polarization, and widespread

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25 According to the non-profit organization known as the Gun Violence Archive. See: www.gunviolencearchive.org/
disagreement—if not all-out cultural warfare—have beset the public sphere, rendering our sensemaking on these complex issues nebulous and opaque. The broadcast media has been largely consolidated and corporatized, while the rise of social media in the 2010s has radically intensified cultural fragmentation, tribalization, extremism, and polarization—pushing the memetic tribal culture wars into physical violence and widespread civil unrest in the West and beyond. And with the migration of popular attention in the early 2010s from centralized broadcast media to social media platforms, such as Facebook and Twitter, our culture shifted the predominant mediums for the discourse of the public sphere and underwent a radical transfiguration. According to the non-profit Centre for Humane Technology, scientific studies have shown that social media (at least in its predominant surveillance-capitalism oriented algorithmic expressions to date) tends to increase cultural and political polarization, extremism, outrage, and fake news, as ‘generating engagement’ from ‘users’ reigns over truth and virtue, bots over people, and profits over privacy, democracy, and the common good. Our media ecology, which is supposed to be the Fourth Estate in a functional democracy, has become increasingly fragmented and difficult to navigate, leading to a kind of atrophying of the public sphere and the rise of authoritarian movements.

The epistemic crisis of information warfare, polarization, disagreement, and gridlock—radically amplified by social media—reached a fever pitch in 2016 with the Brexit vote in the United Kingdom and the election of President Donald J. Trump in the United States, and the increasingly sophisticated mis- and disinformation campaigns (including those involving the Russian Government and Cambridge Analytica) exploiting social media data to manipulate
political outcomes. A volcano of far-right ethno-nationalist populism erupted from the depths of the national psyches of the United Kingdom, Europe, Russia, the United States, and even parts of Asia and South America (e.g., Brazil), calling into question our institutions of legitimate epistemic authority, from academia to the broadcast media. Many agree that 2016 signalled a radicalization of cultural and information warfare wherein the monopoly on epistemic authority held by the progressive establishment or ‘blue church’ reached a tipping point and began to unravel (Greenhall, 2017). The identity politics of some far-left movements (e.g., ‘wokism’ or ‘cancel culture’) has likewise tendentially devolved into similarly dogmatic and ideological expressions (e.g., militant ‘political correctness’) that, like their far-right counterparts, arguably veer towards authoritarianism and undermine liberal-democratic values such as rationality and the common-sense realism it presupposes, free speech, and principles of universal justice (Pluckrose & Lindsay, 2020a). Information warfare, ‘psyops,’ fake news, so-called ‘deepfakes’ (Schick, 2020), psychographically targeted misinformation campaigns (e.g., that of Cambridge Analytica), hybrid warfare, virtual armies of trolls and bots, attention capture driven by surveillance capitalism AI algorithms (wherein engagement virality trumps epistemic validity), insular echo chambers of outrage-driven social media discourse, ‘flat earthers,’ ‘alternative facts,’ and the widespread appeal of the QAnon conspiracy theory implicated in the January 6 insurrection on the United States capitol announce the arrival of an era of cultural turmoil and epistemic closure that many refer to as the ‘post-truth’ era (see e.g., J. Baldwin, 2018; D’Ancona, 2017; Wilber, 2017b).

Aptly, in 2016 Oxford Dictionaries selected ‘post-truth’ as its word of the year, defining it as “circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief.” In a post-truth era of so-called ‘alternative facts,’ public perception or interpretation has become collapsed with reality itself, wherein reality is reduced to perception or interpretation (what Bhaskar calls the epistemic fallacy). A pernicious reading of Nietzsche’s famous dictum that “there are no facts, only interpretations” has infected the public sphere (quoted in D’Ancona, 2017, p. 14). But, as Aldous Huxley (1927) famously put it, and critical realism firmly and rigorously establishes, “facts do not cease to exist because they are ignored.” Indeed, in the words of Philip K. Dick, “reality is that which, when you stop believing in it, doesn’t go away.” But when reality is conflated with perception or interpretation (irrealism), what happens (from a realist vantage point) is an alarming decoupling of prevailing worldviews from truth and reality—a cultural pandemic condition that closely resembles the definition of a (collective) psychosis. Stein (2018b) drives the point home:

The new post-truth culture is most obviously dangerous when it comes to orienting collective action towards the realities of the physical world. It is simply dangerous to not have a clear sense of the effects of common industrial toxins and food additives, the scope of climate change, or the amount of radiation leaking from the damaged Fukushima nuclear reactor (p. 211).

Indeed, according to Piagetian evolutionary biology, when organisms fail to accurately construe the realities of their physical environment, they enter a perilous ‘disequilibration’ between worldview and world that can threaten their ability to survive and reproduce.

27 See www.bbc.co.uk/news/uk-37995600
28 This quote is attributed to Philip K. Dick. See www.goodreads.com/quotes/646-reality-is-that-which-when-you-stop-believing-in-it
Having sketched these four overlapping crises that compose the metacrisis, it should be clear that integrated, big-picture knowledge is necessary to develop an adequate understanding of it.

**Metacrisis and the Axiological Necessity of Metatheory**

Clearly, the metacrisis is the most complex and urgent challenge of the twenty-first century, climate change being understood as perhaps its most important and critical expression or symptom, as it is supervenient on many facets of the metacrisis.\(^{29}\) The metacrisis is a ubiquitous, real-world phenomenon, whose unprecedented complexity profoundly transcends the boundaries of our traditional academic disciplines and specialized research methodologies. Indeed, the metacrisis is a complex, multifaceted *gestalt* or “laminated system” (Bhaskar et al., 2018; Bhaskar et al., 2010; Collier, 1989) which is far more complex than can adequately be addressed by piecemeal, mono-disciplinary theories and methodologically restricted research programmes. Such approaches fail to account for all its essential facets and their systemic, non-linear interrelationships and are therefore incapable of providing adequate holistic accounts of the metacrisis. The metacrisis itself is a vast, multifaceted, interwoven, systemic *totality* that implicates all facets of life and thus all the major disciplines of the academy—the natural and social sciences, the humanities, and the arts—while simultaneously blurring the boundaries between them. Likewise, the ubiquity, scale, and dynamically interdependent nature of the metacrisis reveals the narrow, ‘research as usual,’ hyper-specialized disciplinary gaze as profoundly partial, inadequate, and anachronistic in terms of formulating any kind of adequate

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\(^{29}\) See, for example, Naomi Klein’s (2014) *This Changes Everything: Capitalism vs. The Climate* for an exposition of climate change’s ubiquitous impacts on the planet, including all facets of human society.
understanding and response.\textsuperscript{30} Any adequate understanding of the complex reality of these crises demands a coherent higher-order framework that can coordinate the complexity of actualized crisis events or ‘symptoms’ with a “meta-symptomology” (Jessop, 2015) or meta-explanatory theory of their underlying structural drivers. Anything less than a sophisticated, big-picture metatheoretical understanding and response to our situation will necessarily be doomed to fail, since the complex task demands of the metacrisis will exceed our ability to make sense of it, leaving us ‘in over our heads,’ to borrow Kegan’s (1994) phrase. That is, axiological necessity is beckoning integrative metatheory to assume its crucial role in the flourishing of humanity’s collective sensemaking.

Moreover, the global crises we face—eco-social, ethical, existential, and epistemic—are so deeply interconnected that they are not solvable in isolation, since they share multiple common underlying structural root causes. One can trace the causal roots of these crises back in a general retroduction\textsuperscript{32} from the level of institutionalized techno-economic and geopolitical structures and systems (which are, of course, cultural reifications) to the philosophical, scientific, cultural, psychological, and spiritual structures in the vital dynamism of the lifeworld (\textit{lebenswelt}). Human social systems were created by \textit{humans} (see e.g., Björkman, 2019)—and created around a vision of the world and humanity’s place in it—a worldview (\textit{weltanschauung}), collective self-understanding, or overarching metatheory (whether implicit or explicit). Clearly, without a big-picture or panoptic understanding of our world in metacrisis,

\textsuperscript{30} Of course, specialized, disciplinary knowledge can, in principle, complement integrative, big-picture, transdisciplinary knowledge, so long as it does not marginalize it by asserting reductionistic paradigms. Such micro-specialization, nonetheless, is no substitute for the macro-specialization in generalization and integration when it comes to addressing the metacrisis.

\textsuperscript{32} See Appendix Five for a definition of ‘retroduction.’
we will not even be able to begin the project of innovating effective solutions. That is to say, a coherent and adequate metatheory—defined as theory about or beyond theory\textsuperscript{33}—that can do justice to its reality by systematically coordinating and integrating multiple disciplinary and methodological perspectives to account for its myriad dimensions. Inter/multi-/cross-disciplinary approaches have made important advances in solving applied problems in the real world, but have not tended to produce enduring metatheoretical results and coherent overarching visions that can systemically inform comprehensive solutions and transformations (see e.g., Bammer, 2013), as they tend not to operate at the requisite levels of complexity and philosophical sophistication. As such, I argue that to aptly address the reality and aetiology (or causal roots) of the metacrisis, comprehensive and coherent ‘big-picture visions’—that is, integrative metatheories—are needed for four principal reasons, corresponding to their four primary functions, which are as follows: 1) integrative; 2) realist; 3) emancipatory; and 4) visionary.

First, as noted above, the complex twenty-first century challenge of the metacrisis demands integrative metatheories that go beyond the proliferating fragmentation of knowledge and ‘grasp the big-picture.’ That is, in their integrative function, metatheories can support us to effectively account for the intricate multi-dimensionality and dynamism of the metacrisis (and other complex phenomena), fostering systematic coordination and integration across disciplinary boundaries and knowledge domains. In this way, metatheory can ultimately help generate an integrated, coherent, and non-reductionist view of reality, the crises we face, and

\textsuperscript{33} For more context and nuance around my definition of metatheory, see Chapter 2, as well as Appendix Five.
the transformative praxis that can optimize the conditions for planetary flourishing. If there is insufficient awareness of the multiplicity of dimensions and intersecting contextual processes constitutive of the metacrisis (e.g., deeper causes, symptoms, and perspectives) woven into our response, civilization in a recognizable form is unlikely to sustain itself, given the exceedingly narrow window of time we have to transform it (IPCC, 2018, 2021). Precisely because the metacrisis is so complex and urgent, we must address the holistic complexity of our problems together as a singular systemic totality, or, I argue, those aspects of its complexity that are absent in our response will inevitably be fed back at us—as a ‘return of the repressed’—in the form of new problems that we will very likely not have time to deal with effectively before our window of opportunity narrows or closes altogether. Either we deal comprehensively and proactively with the complexity of the metacrisis in our response, or we will have to deal with it later—and at great and potentially irreparable cost to our collective future.

Second, metatheories can illuminate pathways beyond the denial of the truth and reality of the metacrisis and the schizophrenic cacophony of perspectives, or “aperspectival madness” of the so called “post-truth” world or society (J. Baldwin, 2018; D’Ancona, 2017; Wilber, 2017b) by reclaiming and reindicating ontological realism. That is, metatheory can provide rigorous intellectual justifications for the resurrection of strong notions of truth and reality (that things can be true and real independent of the constructions of human minds)—while simultaneously honouring principles of epistemic fallibility and relativity (that our apprehension of the world can be false or partial and is always a geo-historically situated social product open to critique). Taken together, ontological realism and epistemic relativity are indispensable for resurrecting
the possibility of judgemental rationality, or the ability to rationally judge a claim as more or less true or valid, without which—as we can see concretely actualized in the United States and other parts of the West—a healthy public sphere and functional democracy are not possible. This is perhaps one reason that, as the metatheorist Zachary Stein (2016a) puts it, “the proliferation of robust metatheories should in turn foster the emergence of more substantive and coherent voices in the public sphere, which is otherwise becoming increasingly irrational, inarticulate, and superficial” (p. 36).

Third, in revindicating reality, metatheory can serve a crucial emancipatory function by helping us to identify the real causes of social pathology, oppression, and alienation as they relate to the metacrisis—and support emancipatory praxis via cultural transformation and concrete socio-political movements. Moreover, metatheory can serve an emancipatory function given its vantage point or role of overseeing and critiquing discipline-specific theories or theories that cut across disciplines. Given its relatively comprehensive grasp of the ‘big-picture,’ metatheory can enter more local discourses and rationally adjudicate various reductionisms, contradictions, aporias,34 or absences found therein. This, in effect, fosters emancipation from the attempted tyranny of false, demi-real, or partial theories (e.g., radical social constructivism or staunch positivism) asserting their hegemony.

Fourth, to address the metacrisis, integrative metatheory is necessitated for its visionary potentials, as we need to expand the purview of our vision and imagination to develop new

34 See Appendix Five for a definition of ‘aporia.’
ideas about our purpose, our place on Earth and in the cosmos, our collective potentials and capacities as human beings, and what the conditions for our universal free flourishing are. Integrative metatheory is well placed to assist with actualizing this promise and propitious potential of the metacrisis by articulating an integrated descriptive, normative, and aesthetic vision of a concrete utopian, flourishing, or eudaimonistic society
(Bhaskar, 1993/2008, 2002a, 2002b, 2002d) and a coherent blueprint for global transformation or phase shift in the coming decades (Wallerstein, 2004). We need to rethink and redesign the foundations of our civilization (e.g., our neoliberal economic model and its presumptions of unlimited and exponentially increasing extraction-based economic growth on a finite planet) from within the context of a new vision or philosophical anthropology of who we are as a species. Without such a meta-level vision or big-picture ‘positive sociology’ we cannot even ‘see’ what kind of planetary society is possible, let alone actualize it. Similar to the ‘positive psychology’ movement (see e.g., Seligman, 2004; Seligman & Csikszentmihalyi, 2000) that aimed to shift the dominant focus of the discipline away from the understanding of disease and illness by turning towards the understanding of healthy or ‘positive’ relationships, emotions, meaning, actualization, or other individual expressions, ‘positive sociology’ (Stebbins, 2009) is a broad attempt to complement sociology’s predominant focus, in recent decades, on social pathologies and oppressive dynamics, by thematizing studying the conditions that support societal well-being and collective flourishing (Briggs & Reiss, 2021). But since social science recursively is part and parcel of the social world it studies, we need visionary metatheorists to perform concrete utopian thought experiments to spark our imagination and transformative

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35 See Appendix Five for a definition of a ‘eudaimonistic society.’
collective intelligence as we envision our future potentials and forge a new culture. As such, metatheory, in its visionary capacity, can reclaim and ignite realistic and active hope (Macy & Johnstone, 2012) in a time of growing despair where hope may indeed be an essential resource (and causal force) for the immanent cultural transformations needed in the face of the metacrisis.

In short, the metacrisis appears to be a forcing function for the emergence of an integrated, big-picture perspective that can honour and express reality in service of freedom and flourishing. That is to say, the world or life itself—what Bhaskar (1993/2008, 1994/2009) refers to as alethic truth, the reality principle, and axiological necessity—seems to be demanding deep transformation to new intellectual formations and structures of consciousness that can support the emergence of new cultural and social formations, apt for our contemporary moment of metacrisis. To the extent that they come into a tightly coupled resonance with the alethic truth of the field of nature, such formations, I argue, can not only avert eco-catastrophe and human extinction but also actualize the world’s evolutionary potentials and profound opportunities for human development and species-level spiritual maturation, on the way to the emergence of a eudaimonistic society and freely flourishing Earth community. Under the right conditions, integrative metatheories can, I contend, constitute a kind of entelechial causal force, or hermeneutic attractor (Hedlund, 2003), that catalyzes the actualization of new

37 See Appendix Five for a definition and further discussion of of ‘alethic truth,’ a term coined by Roy Bhaskar (1986/2009).
38 See Appendix Five for a definition of ‘emergence.’
39 See Appendix Five for a definition of ‘spiritual’.
40 See Appendix Five for a definition of ‘entelechial causal force.’
41 See Appendix Five for definitions of ‘attractor’ and ‘hermeneutic attractor.’
structures of consciousness and key higher-order potentials of humanity that otherwise remain occluded as mere potentials. It is precisely this actualization of our collective potentials as a species and its instantiation in the emergence of a eudaimonistic, free-flourishing society that, in many ways, constitutes the aim or telos of this thesis.

Metatheory, Worldviews, and Cultural Transformation

Taken together in its integrative, realist, emancipatory, and visionary potentials, I argue that metatheory, in the updated, twenty-first century inflection I am rendering here (integrative metatheory 2.0), constitutes a form of human agency that can catalyze a fundamental cultural ‘lifeworld transformation’\(^{42}\) wherein illusory (but nonetheless causally efficacious) or demi-real modes of thinking and acting are shed and a deeper self-understanding of who we are as a species—our \textit{raison d’être}—and our place in the field of nature is cultivated (Hedlund et al., 2016). Similarly, Zachary Stein (2016a), has invoked metatheory as “humanity’s vocabulary of self-transformation” while Daniel Görtz (in press) argues that, “metatheory helps us to reorganize and reconstruct our fundamental assumptions about reality” (p. 10). It is precisely in this line of thinking that I proceed. Our background presuppositions and assumptions about reality—how we understand ourselves and our place in the world—powerfully inform how we relate to and shape the world in and through the agential activities that reproduce or transform our social structures and systems. Thus, metatheory is a key cultural generator function that can move and refashion the architectonic\(^{43}\) structures of our collective psyche and potentially trigger—through communicative dissemination (Habermas, 1987), morphic resonance

\(^{42}\) See Appendix Five for a definition of ‘lifeworld’.

\(^{43}\) See Appendix Five for a definition of ‘architectonics.’
Metatheories tend to undergird our collective modes of thought and vision—our worldviews—around which we organize all aspects of our societies. According to Tarnas (2007),

> Our world view is not simply the way we look at our world. It reaches inward to constitute our innermost being, and outward to constitute the world. It mirrors but also reinforces and even forges the structures, armorings, and possibilities of our interior life. It deeply configures our psychic and somatic experience, the patterns of our sensing, knowing, and interacting with the world. No less potently, our world view—our beliefs and theories, our maps, our metaphors, our myths, our interpretive assumptions—constellates our outer reality, shaping and working the world's malleable potentials in a thousand ways of subtly reciprocal interaction. World views create worlds (p. 16).

Worldviews, in a very general sense, refer to “a comprehensive conception or apprehension of the world” (Merriam-Webster, n.d.) and therefore have significant referential overlap with integrative metatheories, which can be understood as theories about or beyond theories that disclose big-picture perspectives on the world. However, I disambiguate worldviews from metatheories by arguing that integrative metatheories can be understood as the formalized intellectual expression and rationalization (and/or reconstruction) of larger cultural worldviews, functioning in resonance with social structures. Whereas worldviews can be understood as more informal, culturally sedimented, and widely adopted meta-structures that are largely reproduced in the flow of collective cultural agency (however unconsciously),

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44 According to some generalized definitions, metatheory “involves the study of the epistemological, ontological, methodological, or axiological premises on which any theoretical statement rests” (Mark G. Edwards, 2010b, p. 39) and functions as an overarching interpretive lens. Worldviews have been defined as “overarching systems of meaning and meaning-making that to a substantial extent inform how we interpret, enact, and co-create reality; they are complex constellations of epistemic capacities, ontological presuppositions, and ethical aesthetic values that converge to dynamically organize a synthetic apprehension of the world” (De Witt & Hedlund, 2017). Indeed, there is a striking resonance and referential overlap between these. For more on worldviews, see the work of Dutch social scientist Annick Hedlund-de Witt (A. Hedlund-de Witt, 2013a, 2013b, 2013c). The definition of metatheory is discussed in more depth in Chapter 2.
metatheories, in contrast, can be understood as deep causal codes or architectonic generator functions of our worldviews and thus our socio-political order (see Figure 3). To further the computational metaphor, metatheories are akin to the deep, architectonic, or meta-structural coding languages used in systems programming that constitute the formation and structure of an operating system (worldview). Such operating systems in turn function as platforms that enable and define the parameters for the application software (e.g., techno-economic and political systems). The three nested levels feed back on one another (as represented by the arrows in Figure 3): for example, worldview structures can inform metatheories such that metatheories are forged as rational reconstructions or formal intellectual inflections of worldviews, while socio-political systems often exert a reproductive pressure on worldviews, tending to entrain worldviews accordingly. So, while I emphasize the causal chain of supervenient, downward/inward influence from metatheories to worldviews to socio-political systems, their relations can also be non-linear and co-causal. The downward/inward arrows represent a transformative chain of agency emanating from the lifeworld, while the upward/outward arrows signify a reproductive tendency emanating from the systems level.

45 Metatheorists have referred to such deep metatheoretical structures as “underlying theoretical code” (Colomy, 1991), as well as ‘architectonics’ (George Ritzer, 1991). Other thinkers, such as Hanzi Freinacht (2017, 2019) and Jordan Hall (2019) have also deployed the metaphor of deep or cultural ‘code,’ which I learned of after deploying it myself.  
46 Note that the operating system does define the basic structure for all applications (defining how events are generated). It does not, however, define parameters specifically for a single application, which can be freely deployed.  
47 Interestingly, systems programming—that is, the coding of ‘meta-software’—requires a keen awareness of the hardware (or material substrate that undergirds and supports the functioning of the application software and operating system), as even small design flaws can ripple into significant problems at scale (Wikipedia, 2020). Likewise, integrative metatheorizing requires careful attention and attunement to ecological context and boundary conditions, as discussed below, if systemic flourishing is to be supported.  
48 The relations between the levels of metatheory, worldviews, and socio-political systems are conceived of here as loosely “holarchical” (Koestler, 1968). Holarchical relations, unlike other simpler relations, can be legitimately described using a variety of metaphors, including downward and upward, inward and outward, etc.
Thus, if worldviews tend to act as generative blueprints for social structures, and metatheories often act as blueprints for worldviews, then understanding metatheory means understanding the most powerful meta-level forces—or “hermeneutic attractors”—that govern the evolutionary trajectories of systems in the sociosphere (Hedlund, 2003, p. 69). Similarly, systems theorist and environmental scientist Donella Meadows (1999) argued that “paradigms [or ‘worldviews’] are the sources of systems. From them, from shared social agreements about the nature of reality, come system goals and information flows, feedbacks, stocks, flows and everything else about systems” (p. 18). Here Meadows refers to these metatheoretical paradigms or worldviews as among the most effective interventions or strategic “leverage points” to catalyze whole systems transformation. Referencing Meadows’ thinking, IPCC climate scientist Karen O’Brien (2016) states that “a paradigm, or ‘the world view underlying
the theories and methodology of a scientific subject,’ represents the deepest set of beliefs about the way the world works, and it can be a powerful leverage point for systems change” (p. 618). While both Meadows and O’Brien do not explicitly refer to metatheory, and therefore do not distinguish between ‘metatheories’ and worldviews in the way that I argue for here, they both affirm the general notion of the causal power of worldviews or paradigms to supervene on socio-ecological systems and highlight their transformative potentials. Distinguishing metatheories from worldviews (and paradigms) confers a nuance that arguably highlights an additional element of leverage for cultural and socio-ecological transformation.

In their institutionalized or reified form (static hermeneutic attractors), metatheories (e.g., positivism in the early twenty-first century) constitute causal forces of order that tendentially reproduce the status quo of cultural and social structures (Hedlund, 2003). Identifying them as such can specifically serve the emancipatory function of metatheories to the extent that they are oppressive or socially pathological (Bhaskar, 1986/2009; Habermas, 1984, 1987). However, in their dynamical, emergent form (as ‘strange’ or ‘chaotic’ hermeneutic attractors), metatheories refer to the deep causal codes or generative forces that tendentially drive cultural and social transformation to higher-order coherence and complexity, connecting to their visionary potential. Crucially, again, they are key generator functions for actualizing transformative cultural agency; they are among the most vital and strategic cultural forces capable of producing cultural innovation and, eventually, socio-political transformation. As the social scientific metatheorist Mark G. Edwards (2010b) writes, “metatheories have been extremely influential in the development of modern economies, systems of government, health
and education and yet the scientific study of metatheories has been virtually ignored as a topic of research” (p. 3). And this influence of metatheory can be powerfully emancipatory or lead to new problematics and forms of oppression. For example, as Daniel Görtz (in press) notes:

Hegel’s (earlier and distinctly modern) stab at a metatheory arguably underlies the rise of Marxism, with dramatic real-world consequences. Francis Bacon and Descartes created the underlying framework of modernity’s scientism and dualism, which has arguably brought both progress and enormous havoc (disconnecting us from nature and non-human animals as well as providing tools of justification for European colonialism).

Furthermore, Kant’s irrealist philosophical metatheory undergirds the radical social constructivism and anti-realism of postmodernism, some streams of which have produced critical theory and identity politics, which has in turn played a pivotal role (along with social media) in producing our ‘post-truth’ culture of radical polarization and the decay of liberal democracy (Pluckrose & Lindsay, 2020b). Indeed, metatheory, as abstract and general as it may sometimes be, clearly precipitates highly practical socio-political changes that have direct and concrete causal effects on real human lives and societies, often meaning the difference between suffering and flourishing—oppression or emancipation.

Given both the causal efficaciousness of metatheories and their relative neglect in understanding the dynamics of cultural and social reproduction and transformation, I seek to illuminate and underscore the potential that metatheorizing holds for initiating some of the key cultural transformations needed to address the metacrisis. “All of the global challenges that we currently face,” M. G. Edwards (2010b) argues, “whether they be environmental, socio-cultural or economic in origin, require some level of big-picture metatheoretical response” (p. 3).

49 Here we are following Bhaskar’s (2002/2012b) analysis that “the post-modernists are non-dialectical post-Kantians” (p. 30).
Whether by that name or not, overarching metatheoretical maps (or their absence), I wager, will ultimately be decisive causal determinants of our collective fate as we navigate the stormy waters of the metacrisis. Given the urgency and systemic interdependence of the many facets of the metacrisis, the time has come for those of us called to identify its root causes to revindicate, clarify, and activate the transformative power of metatheory. In doing so, I argue, it confers credence upon it as a distinct and important field of scholarship, thereby emboldening its power to help us shape culture and make sense of our hypercomplex age.

As such, it is worth zooming in on the cultural dynamics related to the ways in which metatheories carry the potential to resound more broadly in the culture, transforming worldviews and entraining social structures and technologies. Apt metatheories—these new intellectual formations—are of paramount importance if we are likewise to help birth the emergent worldviews and new cultural and social formations demanded by the planetary moment. Metatheories typically begin on the micro-level of culture (that is, in the minds of metatheorists) striking a resonance\(^50\) with the zeitgeist and extending their sphere of influence into more diffuse meso-level communities where they truly come to life, and under the right conditions can shape macro-level worldviews, and—eventually—institutionalized social structures.

As sociologists, philosophers, and historians such as Charles Taylor (2004) and Richard Tarnas (1991) have argued, a careful study of intellectual history reveals that often what began as

\(^{50}\) Of course, there are numerous metatheories that failed to resonate adequately with the zeitgeist and therefore were of limited cultural and social import.
ideas or ‘theories’ held by a few eventually come to profoundly inform and shape our worldview and social imaginary, first amongst intellectual elites and then in the public sphere and society at large. The history of philosophy, then, is in many ways the history of the key cultural codes, attractors, or ‘generator functions’ of societal transformation and reproduction. Leading philosophers—when graced with a precise set of conditions—are harbingers, on a formal intellectual level, of emergent cultural formations or worldviews, responding perhaps to the luring of a higher-order reality or hermeneutic attractor, which they crucially shape and are recursively shaped by. Philosophers express these emergent cultural codes by making the liminal, preconscious gestalts of knowledge into conscious, discursive intellectual formations.

Similarly, as the American sociologist Randall Collins argues and empirically demonstrates in his tour de force, *The Sociology of Philosophies: A Global Theory of Intellectual Change* (2000), rather than emerging solely from the minds of a small number individual philosophers, or being created by (macro-level) ‘cultures,’ small groups of intellectuals or communities of scholars in dialogue (at the meso-level) are the source of most culturally and historically impactful intellectual innovations at the macro-level, even if those innovations are sometimes disseminated predominantly through the work of key philosophers or thought leaders. In fact, in scanning across the timeline of recorded history as a whole, East and West, Collins finds only three notable philosophers or thinkers that seemed to rise to historical prominence by themselves: the first-century Taoist metaphysical philosopher Wang Ch’ung; the fourteenth century Zen practitioner Bassui Tokusho; and the fourteenth century Arabic philosopher Ibn Khaldun. Historically significant social innovations, for Collins, have emerged from within the
intimate resonance of deep friendship and community, albeit with an intellectual keynote. As Collins (2000) maintains,

In the case of the ideas we are concerned with here, the ideas which have mattered historically, it is possible to demonstrate that the individuals who bring forward such ideas are located in typical social patterns: intellectual groups, networks, and rivalries [...] the history of philosophy is to a considerable extent the history of groups [...] groups of friends, discussion partners, close knit circles that often have the characteristic of social movements (p. 3).

Malcolm Gladwell (2002) summarizes Collin’s argument: “[it is] not that innovation attracts groups but that innovation is found in groups: that it tends to arise out of social interaction—conversation, validation, the intimacy of proximity, and the look in your listener’s eye that tells you you’re onto something” (p. 2). In short, small groups forged by deep intellectual friendship, salons, symposia, collaborative inquiries and dialogues, scholarly circles, and the like are key generative conditions for metatheoretical development and cultural and social innovation. Such intellectual innovations of networks amongst the intelligentsia impact on and transform culture and, in turn, society and social systems at large.

The “central network” during the apex of the French Enlightenment’s intellectual innovation were the Encyclopedists, a group of friends who gathered regularly in the coffee houses of Paris. This can also be seen, for example, in the case of the network of German idealists and their social core of Fichte, Schelling, and Hegel, who cultivated a deep intellectual friendship while living together for a time in the same house in Tübingen, and interacted with other notable intellectuals, including Goethe, Schopenhauer, Kant, Schiller, Novalis, and Humboldt (Collins, 2000). One could argue that the German idealist’s innovations went on to influence the

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51 Goethe’s scientific study of plant morphology is said to have inspired Hegel’s basic notion of dialectic, which was a more abstract, philosophical inflection of Goethe’s stages of plant development.
world in profound ways, both bright and troubling; for example, Hegel’s work was taken up by Marx, who in turn was distorted and put into practice by Lenin and Stalin in the form of Soviet fascist socialism (Fromm & Marx, 1966); the idealists also served as a key intellectual inspiration for the human potential movement, beginning in the 1960s, which in large part seeded the culture of contemporary spirituality in the West. Kant, Hegel, Fichte, Schleiermacher, and Humboldt also deployed the idealist-romantic metavision in praxis, applying it in the domain of educational reforms that established the basic structure of the modern research university (Collins, 2000). While Freud founded the field of psychoanalysis and depth psychology, the movement actually began in Vienna in 1902 when Alfred Adler, Wilhelm Stekel, Max Kahane, and Rudolf Reitler gathered every Wednesday in Freud’s waiting room to eat strudel, and dialogue about topics such as the unconscious (Gladwell, 2002). Similarly, the beginnings of the industrial revolution were sparked by the ‘Lunar Society’ a group of intellectual friends in Birmingham in the mid-eighteenth century (Uglow, 2002). This group included Erasmus Darwin, a natural philosopher, physician, inventor, and poet (who wrote about evolution 50 years prior to his grandson, Charles Darwin), along with the inventors, artisans, and industrialists Mathew Boulton, James Watt, Josiah Wedgwood, Joseph Priestley, Samuel Galton, and James Keir. These friends would meet around every full moon to eat and drink wine before talking, laughing, delving deep into their ideas and inventions late into the night (hence the name ‘Lunar Society’). They discussed a diverse and interdisciplinary set of ideas, each stirring and challenging the others in their thought and practice. Coming together for ‘a little philosophical

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52 See e.g., Jeffery Kripal’s (Kripal, 2007; Kripal & Shuck, 2005) writings on the emergence of the human potential movement, centred at the iconic Esalen Institute in Big Sur, California, as well as the writings of Esalen co-founder Michael Murphy (e.g., Murphy, 2014).
laughing’—a playfully serious notion that Darwin used to describe what was happening in these inspired full moon meetings—the so-called ‘lunar men’ exemplified the need for those in the intellectual avant-garde to bond in thought and laughter to embolden each other and prod each other to dare to push the envelope of cultural convention and forge genuinely free, novel ideas (Uglow, 2002).

As mentioned above, the eighteenth century French philosophes of the European Enlightenment (e.g., Voltaire, Rousseau, d’Holbach, Diderot, d’Alembert, Condillac, Montesquieu) gathered in the salons and coffee houses of Paris, such as that of the Baron d’Holbach, which hosted the Encyclopedists from 1749 to 1798 (Collins, 2000, p. 606) for dialogical inquiries and debates. The Encyclopedists\(^\text{\textsuperscript{53}}\) articulated an ambitious proto-metatheory through their Encyclopédie (subtitled A Systematic Dictionary of the Sciences, Arts, and Crafts), which ambitiously sought to include all the world’s knowledge (Collins, 2000). Through their intellectual innovations, they forged a vision of a radically new epistemic foundation for society that was organized no longer on principles of substantive rationality, fixed and politically mediated ontotheological claims, and myths that flew in the face of reason and empirical evidence. Rather, inspired in important ways by North American Indigenous intellectuals (Graeber & Wengrow, 2021),\(^\text{\textsuperscript{54}}\) they “formulated the modern alliance of science with the politics of progress and justice, together with a critique of dogmatic religion” (Collins,

\(^{53}\) Namely, Diderot, d’Alembert, d’Holbach, and Condillac.

\(^{54}\) Graeber and Wengrow (2021) have clarified, through their brilliant and revolutionary scholarship, that the very inception of the European Enlightenment can importantly be attributed to the influence of key ideas gleaned largely by early French missionaries in North America through their encounter with a series of sophisticated Indigenous intellectuals who represented a deep and long tradition of philosophical-political inquiry and dialogue. Graeber and Wengrow argue—quite convincingly—that Indigenous ideas made their way back to Europe, where they went on to inspire the European Enlightenment’s key ideals of freedom, equality, and democracy.
2000, p. 608) and laid the foundations for a society organized on the regulative ideals of an open, transparent, *procedural rationality* wherein truth claims were open to intersubjective/social validation or falsification by a community of competent reviewers. First established in the scientific revolution of the sixteenth and seventeenth centuries, this general methodology of procedural or scientific reason was then generalized by the Enlightenment philosophes to envisage new, liberal democratic socio-political formations. In essence, the central idea of the European Enlightenment was to extrapolate from scientific methodology and advancement how to achieve social progress towards enlightenment or the evolution of a more civilized, principled, and ethical society (Maxwell, 2019). Together, through their visionary dialogues and shared inquires, *les lumières* of Enlightenment reason forged a grand vision that—emboldened by its resonance with the zeitgeist—sparked and lit a transformative cultural flame that eventually spread into the wildfire of the French Revolution and contributed to the consolidation of modernity as a definitive socio-historical epoch.\(^5^5\)

With these exemplary cases (of the German idealists, the Austrian psychoanalysts, the British industrialists, and the French philosophes) in mind, one can argue from the history of socially influential ideas—metatheories and metanarratives and the small communities of intellectual friendship, dialogue, and inquiry that produced them—have tended to be primary and disproportionate causal forces in the shaping of our worldview and the trajectory of cultural and social history as a whole. Thus, as studies in intellectual history, sociology of philosophy,

\(^{55}\) This consolidation of modernity, which had numerous other contributors (notably in the UK), wove together into a coherent social formation the key threads of the four foundational movements of modernity: Renaissance Humanism, the Reformation, the Scientific Revolution, and the Enlightenment (Tarnas, 1991).
and social change demonstrate, if we are seeking deliberate transformation of our worldview
and social formation to address our complex problems, the level of metatheory is a potent
strategic leverage point.

To be sure, metatheory, particularly in its philosophical expression (i.e., metaphysics, ontology),
is not only a strategic leverage point, but also an inexorable facet of social life. We simply
cannot escape the metatheoretical dimension of social life. Any inquiry into the natural world,
society—or the metacrisis for that matter—necessarily implicates the metatheoretical or
philosophical dimension, as Bhaskar (1975/2008a) convincingly demonstrates through
transcendental argumentation (and which will be expounded in this thesis). There is simply no
such thing as science or everyday social practice devoid of metatheory; essentially nobody
moves through life without some, however rudimentary or unconscious, background pre-
understanding about the nature of reality, knowledge, the human being, ethics, and society.
Agential action intrinsically expresses, consciously or unconsciously, an overarching vision of
the world. Further, as Bachelard identified, all metatheory or philosophy “explicitly or tacitly,
consciously or unconsciously, honestly or surreptitiously […] deposits, projects, or presupposes
a reality” on account of which our concepts make sense of (some aspect of) the world (Quoted
in Bhaskar, 1986/2009, p. 7). Everyday social life is no different—it is only distinguished by
virtue of its proclivity to metatheorize unconsciously in a way that is less cognizant of demi-
realities, contradictions, problem fields, and so on. Thus, without explicit metatheorizing, one
by default resigns oneself to deploying implicit or unconscious metatheories about the nature
of reality, the reality of nature, society, knowledge, etc., that are often marred by performative contradictions, absences, aporias, and other theoretical and practical problems.

As metatheories gain traction and are translated into cultural metanarratives and metamemes\textsuperscript{58} in the public sphere, they are arguably internalized or introjected through the process of socialization as intuitively present stocks of knowledge that function as complex backgrounds of preunderstanding (i.e., \textit{a priori} epistemic structures), or horizons of meaning from which one construes or interprets the world in the act of understanding or meaning-making. Such internalized informal or ‘folk’ metatheories are synonymous with worldview structures of understanding that are recursively affected (reproduced or transformed) by the empirical ‘data’ of sensemaking and acting (Bhaskar, 1979/1998). They condition particular epistemic affordances for social actors, while at the same time delimit what can be apprehended in consciousness. And since we act largely in relation to that which we can see and make sense of, our metatheoretical maps guide behaviour (individually and collectively) in important ways, albeit often devoid of conscious self-reflection.

Clearly, we cannot be fully conscious, in a self-reflexive sense, of the vast nested networks within networks of meaning-making systems conditioning one’s worldview, since this a virtually boundless matrix of socio-linguistic and semantic contexts within contexts within contexts. Nonetheless, there is a continuum of the subject’s self-reflexivity and critical awareness of the background metatheoretical traditions and historical contexts within which they are

\textsuperscript{58} See https://metamoderna.org/what-is-a-metameme/
embedded. Such self-reflexive knowledge is generated through self-reflection, which in turn generates a more liberated and differentiated way of being and acting in the world. As the German philosopher and critical social theorist Jürgen Habermas (1973) puts it,

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Self-reflection brings to consciousness those determinates of a self-formative process of cultivation and self-formation [Bildung] which ideologically determine a contemporary praxis of action and the conception of the world [... It] leads to insight due to the fact that what has previously been unconscious is made conscious in a manner rich in practical consequences: analytic insights intervene in life (pp. 22–23).
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When Habermas refers to “those determinates of a self-formative process” that “determine a contemporary praxis of action and conception of the world,” he is referring to the hermeneutic attractors or causal forces on the level of metatheory that shape our worldview and the practices that logically flow from them. This project of bringing those unconscious metatheoretical determinates of our worldview and interwoven cultural praxis into the light of consciousness and reflexive engagement is a critical aspect of what metatheorizing is about. The explicit metatheorist is distinguished from the everyday social actor only by virtue of a formal and explicit self-reflexivity with respect to the tacit presuppositions that afford the possibility of knowledge and action in the world. That is, formal metatheorists aim, in part, to illumine and make conscious necessary presuppositions about the world, giving up the pretence that those presuppositions are somehow only a posteriori conclusions, and thereby admitting that they were to some degree already present as a priori presuppositions. Therefore, I argue that metatheory is an inescapable and ubiquitous feature of human consciousness and culture, specifically conditioning worldviews and the social practices from which they flow, that can be engaged more or less consciously and coherently. If metatheorizing is inescapable, even when we try to escape it, then our only reasonable option is to metatheorize well—that is, in a way
that accords with relevant validity criteria, makes the unconscious conscious—the implicit explicit—and coheres internally and with the reality of the world.

And yet, despite the remarkable power of metatheorizing to transform (or reproduce) our cultural and social formations, as well as to grasp the big-picture of the metacrisis, much of the contemporary academy appears to be hypnotized by either the hyper-analytic, hyper-specialized gaze of late modernity’s positivism, or the fragmented, deconstructive sensibility of postmodernism’s radical constructivism and its antipathies to realism, integrated knowledge, and meta-level understanding. While there are indeed some encouraging countervailing trends (see Chapters 2 and 3), these two dominant metatheoretical orientations offer gravely inadequate understanding(s) of our many complex problems and their root causes, let alone the socio-ecological metacrisis at large. Without being able to adequately illumine the reality and complexity of the metacrisis, the academy in its current state remains largely impotent to address and help transform it. This point is underscored by the fact that, to date, dominant metatheories (e.g., positivism, social constructivism), have not only failed to alter fundamental trajectories of human-induced ecological degradation (Biermann et al., 2012; IPCC, 2014b, 2018) but are in fact deeply implicated as underlying causal forces contributing to such trends, as has been widely argued by philosophers and social theorists alike (see e.g., Bhaskar, 2002/2012a, ch. 2; Capra, 1982a; Habermas, 1987/2000; Tarnas, 1991; Taylor, 1989, 2004; Wilber, 1995, 1998). Given the urgency of the metacrisis, coupled with the general reductionism and fragmentation plaguing our traditions of knowledge production, there is a deep need for overarching metatheoretical frameworks that can integrate—and bring
coherence to—the cacophony of perspectives relevant to our challenges such that we are empowered to effectively address them and reveal their evolutionary potentials.

This thesis therefore takes a fresh look at the role of metatheory in a time of metacrisis, offering a perspective on what metatheory is, and what it ought to become to adequately grasp and address the unique and urgent context of species-level existential risk presented by our planetary moment. Following the logic of this ontological-axiological chain (what is leads to normative action\textsuperscript{59}), I aim to help ignite the potentials of metatheory as an emancipatory, visionary, and transformational force vis-à-vis our complex twenty-first century challenges. I endeavour to make the case that metatheory in its appropriate form provides indispensable intellectual scaffolding for the crucial psycho-spiritual, cultural, and social transformations demanded by a global metacrisis that threatens to render our planet inhospitable to human civilization, undermining the possibility of flourishing in all facets of our shared life.

In this light, this thesis ventures to articulate: 1) the broad contours of a mode of metatheory apt for addressing the emergent complexity of twenty-first century life and expounding its potential significance as a causal force of holistic social transformation; and 2) a particular metatheory that can substantively serve our understanding and response vis-à-vis the metacrisis. I attempt to advance these objectives, first, by reflection on the nature, role, and

\textsuperscript{59} Conversely, what is (ontology) necessarily depends on normativity and axiology. For example, the intelligibility of descriptive-explanatory science necessarily presupposes the value of truth. This perspective of the intrinsic connection between ontology and axiology is explicated at length by Bhaskar (1986/2009, pp. 183-184), who pinpoints the Achilles’ heel of ‘Hume’s law,’ which argues for a sharp dichotomy between ‘is’ and ‘ought’—the logical independence of facts and values. There is simply no truth seeking in science or everyday cognition that does not inexorably depend on (the) value (of truth). Conversely, science has the potential to illumine human values.
function of metatheory in geo-historical context; and, second, the development of the contours of a particular metatheory through an exploratory-dialogical encounter between what are arguably amongst the most sophisticated integrative metatheories arising in the wake of postmodernism: namely, the European-based philosophical metatheory of *critical realism*, founded by Roy Bhaskar (1944–2014), and the American-based metatheory of *integral theory*, founded by Ken Wilber (1949–).\(^6^\)

I argue that critical realism and integral theory can learn from each other in profound ways and so become more robust and powerful for addressing the unique challenges of our planetary moment, both individually and collectively. In this light, I argue both critical realism and integral theory constitute important intellectual resources for fostering interdisciplinary integration across the natural sciences, the social sciences, and the humanities, particularly apt for theorizing and responding to the metacrisis in an innovative, transformative, and timely way. While they indeed have numerous strengths and points of convergence, they likewise both have a number of deficiencies as well as points of divergence (see e.g., P. Marshall, 2012b). However, the strengths of each often seem to—rather remarkably—coincide with the deficiencies, or areas in need of further theoretical reflection and development, in the other, so that they are therefore broadly complementary, albeit in a complex and asymmetrical

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\(^6^\) This thesis assumes readers to be basically familiar with both integral theory and critical realism. For an introductory overview of integral theory, see Esbjörn-Hargens (2010b) and Wilber (2006). For an introductory overview of critical realism, see Bhaskar (2016a; 1998), Bhaskar et al. (1998), Bhaskar & Hartwig (2010), N. H. Hedlund-de Witt (2012), and Collier (1994). Also see Appendix Five for definitions of some key terms from each of these theories.
manner.\textsuperscript{61} This complementarity thus suggests a propitious, mutually enriching dialogue between these approaches—and highlights the basic rationale and potential for forging a fruitful synthesis. Thus, as we shall see, there appear to be essential components of each respective metatheory—not found in either alone—that are necessary in forging an adequate integrative meta-approach. Such a synthesis would unite the complementary panoptic visions of both critical realism and integral theory into a more encompassing and efficacious integrative approach to the study of complex phenomena. It is therefore highly relevant for advancing our understanding and practice in relation to the metacrisis.

Thus, in this thesis, I synthesize aspects of these two metatheories into a new metatheory—a visionary realism—that might help us to better understand and respond to the metacrisis. I thereby seek to advance this strategic vision—taking some initial steps towards building concrete utopian vistas and phronesis\textsuperscript{62} or situated power-aware practical wisdom (Bhaskar, 1993/2008; Flyvbjerg, 2001; Tyfield, 2015) and compelling, plausible metatheoretical constructs and practices of transformation that operate from and toward real future possibilities. In this way, I seek to embolden our collective movement toward the emergence of such a free-flourishing, eudaimonistic planetary society in the twenty-first century.

\textsuperscript{61} This basic complementarity was the predominant view that emerged from the International Critical Realism & Integral Theory Symposia that I helped to organize as Director of the Integral Research Center in partnership with John F. Kennedy University, the MetaIntegral Foundation, the International Centre for Critical Realism, and UCL Institute of Education.

\textsuperscript{62} See Appendix Five for a definition of ‘Phronesis.’
Research Aim and Scope

Having introduced the broader socio-ecological and intellectual context that informs the general rationale of this study, I will now delineate the overall aim of this study, followed by the key research questions. The principal aim of this thesis is to contribute to the emergence of a eudaimonistic society by developing a more adequate integrative metatheoretical approach to understanding and responding to the metacrisis. More simply put, I aim to develop a more adequate approach to how humans understand ourselves and our world in metacrisis (viz., epistemic sensemaking and existential meaning-making), thereby contributing to planetary flourishing. This overarching aim will be explored via two key sub-aims, corresponding to: 1) the philosophical aspects; and 2) the cultural and psychological aspects of the metacrisis.

Inquiring into the Philosophical Dimension of the Metacrisis

The first sub-aim of this thesis is to inquire into the philosophical or metatheoretical dimension of the metacrisis, following the aforementioned rationale regarding the causal or transformative powers that metatheories possess. As discussed above, although metatheories have played an influential—even pivotal—role in the shaping of worldviews and the design of socio-political systems, their nature remains rather opaque, and their epistemic status in contemporary knowledge ecologies obscure. The term has been used to describe a variety of disparate endeavours that cut across geo-historical contexts and disciplines. Further intellectual development is therefore needed to explicitly thematize, systematically clarify, and revindicate the concept and its relevance for addressing complex twenty-first century challenges. I address this sub-aim (in Chapter 2) first by discussing the nature of metatheory and its historical
morphology, finally proposing a series of updates to the concept that, I argue, render it apt for understanding our contemporary moment, wrought as it is with complex challenges. Concurrent with these updates, I explore how a metatheory apt for the metacrisis is defined. That is to say, I inquire into and clarify what the key philosophical principles or criteria are for developing an alternative or more adequate integrative metatheory for understanding and responding to the metacrisis. These principles or criteria emerged as part and parcel of my philosophical research. Thus, they cannot be given a priori but rather were discovered and clarified through the process, as articulated in Chapter 2. While, as we will see, I define metatheory broadly, enveloping both philosophy and science, I make the case that the two are mutually interdependent, with philosophy providing its essential and indispensable basis; thus, I refer to this dimension of the metacrisis as ‘philosophical’ here. This is followed (in Chapter 3) by a hermeneutical dialectical exploration of the metatheories of critical realism and integral theory, culminating (in Chapters 4–5) in a non-preservative metatheoretical synthesis of aspects of each, particularly in the ontological and epistemological domains of the philosophy of science, while also underscoring the emergent characteristics of visionary realism that are not found in either approach as such. The resulting visionary realism addresses the philosophical dimension of the metacrisis by: 1) serving to explain how such a metatheory can

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63 Formally, this synthesis is a higher-order meta-metatheoretical synthesis since it deals with the contexts of evaluation and integration for multiple metatheories such that the unit level ‘data’ pool resides on a metatheoretical level (Mark G. Edwards, 2010b; Esbjörn-Hargens, 2016; P. Marshall, 2012c). Thus, in analyzing and synthesizing aspects of critical realism and integral theory, I am technically forging a fourth-order meta-metatheory (Esbjörn-Hargens, 2016, p. 116). 63 To my knowledge, the notion of meta-metatheory has not been well established in the discourse surrounding metatheory, and would therefore be a neologism. I am not convinced that championing such a neologism would be helpful but is more likely to obfuscate and potentially come across as highfalutin, opaque, and unnecessary. Thus, I will generally refer simply to ‘metatheory’ or ‘(meta)theory’ in this context with the background understanding that more technical nuance and precision could be invoked. See the metatheorists Markus Molz (2016) and Zachary Stein (2018a) for insightful discussions of the liabilities or dangers associated with approaches that are ‘too meta.’
take important steps towards more adequate collective sensemaking and integrative understanding vis-à-vis the metacrisis; 2) helping to redress the lack of overarching meta-views that confer depth-meaning, collective self-understanding, and coherence to the culture of the West. One of the conclusions of my analysis of critical realism in light of integral theory is that it lacks a coherent taxonomy of epistemic structures and is correspondingly underdeveloped in the realm of epistemology. According to Bhaskar’s (2016a) own account, apparently in response to the critical realism–integral theory dialogues, books, and related critiques of critical realism (Hedlund, 2016a; P. Marshall, 2012b, 2012c; Schwartz, 2016; Stein, 2022),

possible weaknesses in critical realism include its relative underdevelopment of epistemology in comparison with ontology; its relative neglect of some parts of the four-planar social being, for example, of developmental psychology and of the role of worldviews and analogous Gesalts in the formation of belief and action. The kind of taxonomies put forward by, say, Ken Wilber’s school of integral theory may be helpful here (p. 210).

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64 To be clear, this thesis is first and foremost a theoretical disquisition into an adequate integrative understanding of the metacrisis. However, as a secondary focus, I will seek to explore the ways in which such an adequate understanding can incite social innovation and real-world transformation in relation to key interior aspects of the metacrisis. With respect to the traditional academic distinction between theoretical frameworks and applied/practical work, this thesis forges a rather heterodox approach, arguing that, due to the causally efficacious nature of ideas, this binary has been somewhat overemphasized, highlighting the possibility of a complex, recursive relationship between the theory and application/practice. This heterodox position is especially pronounced because the metacrisis, as I argue, has causal roots in the absence of a coherent, overarching, and alethically resonant worldview/collective self-understanding that can adequately situate us in relation to the complex planetary challenges that we face. Thus, the forging and clarification of a metatheory that can contribute to such an overarching narrative translates into a form of applied cultural metapraxis—or ‘lifeworld transformation’ that addresses these root causes. If it holds that the level of metatheory, as I have argued, is amongst the most potent and strategic leverage points or interventions for cultural transformation, and cultural transformation is amongst the most potent and strategic leverage points for institutional, socio-political, and economic transformation, then metatheorizing itself can be understood as a holistic transformative intervention that constitutes a necessary but nonetheless partial response to the metacrisis. That is, metatheory can, in principle, constitute an applied methodology for addressing the deep or root causes of our challenges, and thereby—presuming its dissemination and resonance throughout the sphere of the lifeworld—changing the world. According to the visionary realist metatheory that I articulate in this thesis, these root causes that exist on the level of ideas and intellect—consciousness and culture—are themselves emphatically real. Such a view, however, can be difficult to appreciate from the vantage point of a worldview which holds that ideas, culture, or interiority generally are not ‘really real’—what Wilber (1995) calls the flatland worldview of late modernity. Such a position has been devastatingly critiqued and cannot rationally be maintained, as many other philosophers have demonstrated (see e.g., Roy Bhaskar, 1997); this argument will be elaborated in this thesis (particularly Chapter 5), but the crucial point is that the hard binary between theory and practice/application is transfigured according to visionary realism into more of a soft continuum spanning abstract and general praxis on the one hand and concrete and substantive praxis on the other.
Thus, visionary realism seeks to remedy such absences, with specific respect to a cluster of overlapping concepts, including epistemology, developmental psychology, and worldviews. I do this, first, by drawing out some salient ontological and epistemological implications immanent in the empirical findings of developmental psychology and worldview theory. Specifically, drawing from the field of neo-Piagetian developmental-structuralism, I discuss the dialectic of Kantian categorial irrealism and Bhaskarian categorial realism, offering a provisional sketch of a non-preservative sublation wherein some findings of Kant’s transcendental analysis are integrated, while jettisoning its idealist and irrealist tendencies, and Bhaskar’s position is expanded to remedy the absence of an account of developmental structures that are necessary for a coherent reflexive account of itself. Overall, this thesis explores the relevance of philosophy for addressing the metacrisis, largely in terms of establishing the adequate ontological and epistemological foundations of sensemaking and meaning-making.

Understanding the Cultural and Psychological Dimensions of the Metacrisis

A second sub-aim of this thesis is to generate insight into the cultural and psychological dimensions of the metacrisis—that is, to explore how metatheories inform culture and psychology, and vice versa. Specifically, I explore the epistemic structures or worldviews through which the metacrisis is construed, and which also function as generative mechanisms for the metacrisis. According to Bhaskar’s (2016a) account, there are several blockages or counteracting forces impeding the realization of the eudaimonistic society, including:

1) the domination of the personal by the social, of enablement’s by constraints and of power1 by power2;
2) the current imbalance between freedom and solidarity and the concomitant weakening of—and
deficit in—solidarity and the sense of solidarity;
3) the atrophying of the public sphere; and
4) the increasing lag of the moral evolution of the species behind its technological evolution (p. 205)

While it could be argued that worldviews and metatheories are relevant to addressing all these
forces that are deeply implicated in the metacrisis and occlude the emergence of a
eudaimonistic society, in this thesis I will focus primarily on the second and third factors—or
the deficit in solidarity and the atrophying of the public sphere. Both, broadly speaking, have to
do with the cultural and psychological dimensions of the metacrisis, as they interact with the
philosophical dimensions. Worldviews, which can loosely be understood as generative psycho-
cultural structures that undergird sensemaking and action, are of critical importance in
understanding some of the causes of the current breakdown of the public sphere and social-
political tumult characterized by radical polarization, disagreement, and downright cultural
warfare. With respect to the deficit in solidarity, I address this by looking at the lack of
adequate shared depth meaning and coherent collective self-understanding.

Reflecting on these sub-aims together, it is important to note that there is substantial
referential overlap between the philosophical, cultural, and psychological dimensions of the
metacrisis. For example, a philosophy or metatheory is ultimately an expression of cultural
agency that can in principle influence or even transform culture (as discussed above), and also
pertain to questions of ultimate concern and thereby be deemed psychological, existential, or
‘spiritual’ (Fowler, 1981). Thus, my sub-aims here represent analytically distinct, but not
discrete, lines of inquiry exploring the complex, open-systemic nature of the metacrisis—each
shedding light on the intricately interwoven networks of constitutive causal mechanisms. In
other words, the philosophical, cultural, and psychological dimensions of the metacrisis are overlapping and interrelated open systems and thus cannot be understood in closed-systemic isolation. Resonant with Hampson’s (2010b) notion of a ‘holographic topology’ that balances a centripetal, analytical approach that attempts to isolate and treat things as definitive and clean on the one hand, and a centrifugal, diffuse approach that treats things as more ambiguous, messy, and ephemeral (Law, 2004) on the other, my approach follows a ‘third way’ that integrates these two into a synthetic approach that dialectically balances them and treats them as an ecological network (Davis & Sumara, 2006; Hampson, 2010a). The closed-systemic, conventional mode of academic analysis, or ‘research as usual,’ is largely out of resonance with the open-systemic ecological patterning of the world, and is thereby implicated in the metacrisis itself. Thus, studying the metacrisis in a way that aims to contribute to the emergence of a eudaimonistic society thereby necessitates an open-systemic, ecological, or integrative mode of scholarship (Boyer, 1990).

Having articulated the philosophical, cultural, and psychological sub-aims of this study, I will now sum them up by turning to the research questions.

**Research Questions**

The overarching aim and sub-aims articulated above can be transposed into the following primary research question for this study: *What are the characteristics and qualities of a new* 

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65 With this dialectically balanced approach, each sub-aim (and the corresponding chapters) contributes a part, in a sequential, logical flow, to the articulation of the whole, while simultaneously offering a pathway to the holistic totality of the metacrisis wherein the in-depth contemplation of each sub-aim in its ‘partness’ leads to the revelation of the wholeness in a holographic manner akin to the broad method of Goethean science (Bortoft, 1996; Steiner, 2005).
metatheory that would afford a more adequate understanding of and response to the metacrisis? This overarching research question is explored via five key sub-questions, each of which is addressed in the various chapters of this thesis:

1. **How can metatheory be revindicated in the context of the twenty-first century metacrisis? (Chapter 2)**
   a. What is the state of integrative knowledge?
   b. What is metatheory?
   c. What is the relationship between metatheory that is apt for the metacrisis (i.e., integrative metatheory) and metatheories of the past (i.e., positivism and postmodernism)?
   d. How is a metatheory apt for the metacrisis defined and what are its key principles/criteria?
   e. What are the extant metatheories that most closely meet the criteria for aptly addressing the metacrisis?

2. **How do the most advanced extant metatheories—viz., critical realism and integral theory—offer intellectual resources for formulating a more adequate metatheory of the metacrisis? (Chapter 3)**
   a. What are the most advanced metatheories arising in the wake of postmodernism?
   b. What are the essential ontological and epistemological contributions of critical realism?
   c. What are the essential ontological and epistemological contributions of integral theory?

3. **How can the essential ontological and epistemological contributions of both critical realism and integral theory be synthesized into a more adequate (integrative) metatheory—a visionary realism—that can address the metacrisis? (Chapter 4)**
   a. What are the most salient strengths (moments of truth and coherence) and weaknesses (absences and contradictions) of both critical realism and integral theory within the domains of ontology and epistemology?
   b. What are the key aspects of the ontological and epistemological architectonics in need of theoretical revisioning?
   c. What are the primary causes of the absences and contradictions in each metatheory? And how can they be remedied?
   d. How can the ontological and epistemological architectonics of the two schools be negatively transfigured and synthesized into a visionary realism?

4. **What are the emergent features and overall contours of visionary realism? (Chapter 5)**
   a. What are the logical implications and conclusions of the identified contradictions
and absences of critical realism and integral theory?

b. What is the foundational structure (core elements/principles) of visionary realism?

c. What is the value of visionary realism?

5. What are the features of a visionary realist metatheory of the metacrisis? (Chapter 6)
   a. What are the leading concepts for understanding our complex planetary problems?
   b. What is the metacrisis?
   c. How can a visionary realist metatheory generally disclose a more adequate understanding of our planetary problems and contribute to the emergence of a eudaimonistic society?

Chapter 7 provides a conclusion and reflection on the thesis, considering its key insights and answers to the overarching research question, and reflecting on the educational aspects of the metacrisis, as well as some lines of inquiry for future research and praxis.

Philosophical Methodology

Under the broad umbrella or methodological family of hermeneutics (Alvesson & Sköldberg, 2009; Esbjörn-Hargens, 2006; Esbjörn-Hargens & Wilber, 2006; Gadamer, 1977, 1980; Wilber, 2003, 2006) I utilize the methodology of hermeneutical dialectics (Bhaskar, 1993/2008) which could be understood as a Bhaskarian expressive-referential inflection of alethic hermeneutics, rather than a Heideggerian one (Alvesson & Sköldberg, 2009), to explore the adequacy of both critical realism and integral theory as metatheories for addressing the metacrisis, on the way to forging a synthesis. Hermeneutical dialectics, as it is employed here, is construed in terms of dialectical critical realism (Bhaskar, 1993/2008, 1994/2009; Norrie, 2010), which rejects the varieties of anti-naturalistic (neoidealistic or neo-Kantian) interpretivism sometimes associated with hermeneutics (Alvesson & Sköldberg, 2009). It is therefore consistent with a (critical) naturalism or realist metatheory of (social) science (Bhaskar, 1979/2015) that nonetheless
underscores the critical importance of the hermeneutic dimension in everyday life and social science (Vandenberghhe, 2014). Such a Bhaskarian hermeneutical dialectics was operationalized to engage from an aspirational openness to dialogue, empathic resonance, and the “fusion of horizons” (Gadamer, 1977) wherein apparent weaknesses and problems are challenged and strengths appreciated in a mutually enlightening, wisdom-enhancing exchange that strives to balance a hermeneutics of suspicion with a hermeneutics of faith or generosity, aiming to (fallibly) identify and express alethic truth. Crucially, this involves the identification of truths or verities along with the identification and elimination of errors or falsities—whether as contradictions or omissions. Thus, hermeneutical dialectics in the Bhaskarian sense is finally about *absenting absences* in an emancipatory axiology of freedom, in which there is a tendential directionality towards: 1) the shedding of conceptual constraints (error or incompleteness); and 2) the expression of the alethic truth of things (Bhaskar, 1993/2008, p. 377).

Within this overarching procedural frame of a Bhaskarian hermeneutical dialectics, I deploy the method of in-depth *hermeneutic literature study*, engaging in exegesis of salient texts in critical realism and integral theory to analyze, in particular, the key ontological and epistemological aspects of critical realism and integral theory. In tandem with this literature study, my

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hermeneutic methodology also included the method of in-depth hermeneutic dialogue in the context of the Critical Realism & Integral Theory Symposia Series, which brought together leading scholars from each school for four symposia over the course of four years to explore the potentials for fruitful engagement, critique, cross-pollination, and various forms of integration of each metatheory. As such, a synopsis of this symposium series is warranted here (see Appendix Two for a detailed history and discussion).

In addition to the initial meeting in Luxembourg of Roy Bhaskar, Mervyn Hartwig, Sean Esbjörn-Hargens, and myself, the formal symposia in the series were as follows: 1) John F. Kennedy University, San Francisco Bay Area, 2011; 2) Integral Theory Conference, San Francisco, 2013; 3) Critical Realism Conference, UCL Institute of Education, 2014; 4) Integral Theory Conference, Sonoma State University, 2015. The anthology Metatheory for the Twenty-First Century: Critical Realism and Integral Theory in Dialogue (Bhaskar et al., 2016)—and its sister volumes Big-Picture Perspectives on Planetary Flourishing: Metatheory for the Anthropocene, Volume I and Integrative Responses to the Global Metacrisis: Metatheory for the Anthropocene, Volume II (Hedlund & Esbjörn-Hargens, 2022a, 2022b)—are among the fruitful results of this period of dialogical engagement between critical realists and integral theorists. The books, in many ways, can be seen as the result of our inquiry into the relationship of two of the planet’s most

That said, the corpora of both metatheories (as well as their secondary literatures) are relevant contexts that have informed my inquiry.

67 In Appendix Two, I include two symposia (University of Luxembourg and John F. Kennedy University) that preceded my formal doctoral studies at UCL. These two events informed my preunderstanding as I engaged in an informal inquiry with respect to the status of critical realism and integral theory as metatheories for understanding and responding to the world crisis, with my formal doctoral research method beginning and developing in subsequent symposia.
comprehensive integrative metatheories and how each were—and continue to be—impacted and transformed through such an encounter. Of notable relevance for this thesis, we bore witness to the ‘mutant hybrid offspring’ that emerged through their cross-pollination, and some of the possibilities for how they can mutually empower each other with respect to real-world engagement vis-à-vis the metacrisis. Indeed, my contributions to the books (e.g., Hedlund, 2016a) represent early iterations of what later would become my foundational synthesis of the two schools in a visionary realism. Thus, the Metatheory volumes (Bhaskar et al., 2016; Hedlund & Esbjörn-Hargens, 2022a, 2022b) can also be seen as part of an integrative methodology of dialogical engagement and cross-pollination of two schools of metatheoretical thought in the context of the symposia that seeded the emergence of visionary realism, the distinct approaches to complex integral realism of Esbjörn-Hargens (2016) and Marshall (2016a; 2016b), as well as Stein’s (2022) synthesis.

While I engaged the symposia process from a particular methodological stance, I obviously was not the only one asking questions or sharing emerging reflections. The curation of the symposia was also influenced by social innovation lab methodologies (see e.g., D. A. Edwards, 2010a; Tiesinga et al., 2014); thus, in many respects, I was a participant-observer in an intellectual and social innovation lab that generated insight through a dialectical process that arguably actualized an emergent collective intelligence. That said, as a lead organizer and facilitator of the symposia with Sean Esbjörn-Hargens, I played a prominent role in the curation of the events, weaving my evolving approach of hermeneutical dialectics into their structure and facilitation.
Returning to my two overarching methods of hermeneutic literature study and hermeneutic dialogue, I operationalized this Bhaskarian inflection of hermeneutical dialectics by scanning the architectonics of each metatheory with an eye for key absences (lacunae), contradictions (aporias), anomalies, category errors, etc. Following the general hermeneutic approach, I took neither a monological (positivistic) stance nor a passive receptive (grounded theory) stance towards the texts or my dialogues. Rather, I assumed an epistemically humble yet active or participatory *dialogical* stance so as to ask questions to the text or person(s) I was engaging (Caputo, 1987). While these questions arose first from preunderstandings, as the dialogical process unfolded my questions evolved and transformed in an iterative-reflective manner (Alvesson & Sköldberg, 2009, p. 101). As my reflections and questions took shape through the early cycles of my literature study and dialogical inquiry in and around the symposium series, my understanding eventually spiralled into a point of methodological precision—arriving at the philosophical method of *immanent critique*, which became central to my subsequent approach.

Immanent critique is a philosophical method associated with Hegel, Marx, and the Frankfurt school of critical theory that employs the logic immanent within a given theoretical or sociological system with the aim of revealing a system’s own internal contradictions. That is, immanent critique works from within the given presuppositions, premises, and conclusions of a given system and follows its own systemic logics to identify intractable *internal* contradictions (aporias) or theory–practice incoherencies while pinpointing their causes (Hartwig, 2007, p. 107). Immanent critique stands in contrast to transcendent critique—that is critiquing a system
using external criteria, logics, concepts, or presuppositions. In this way, as Hartwig (2007) writes, it crucially avoids:

the ‘bad circularity’ or arbitrariness implicit in external criteria of knowledge (e.g., judging Socrates by Rorty’s criteria) by taking its departure from within the accounts it seeks to situate, correct, or replace—abandoning all pretence of an ahistorical Archimedean starting point and deploying a process of transcendental argument to demonstrate either that an account is theory-practice inconsistent or, if consistent, beset with aporiai or problems that are insoluble in its own terms (p. 106).

Thus, I use immanent critique to turn each metatheory on itself, recursively applying their respective logics and criteria to the analysis of their own internal coherence, or intra-theoretical consistency, while also refracting each metatheory in the light of each other one with an eye for key problem fields and absences. In other words, I analyze each metatheory with the aim of identifying self-contradictions (aporias) and absences (lacunae), as well as other inconsistencies or anomalies, while attempting to shed some preliminary light on their potential causes. That is, I aim to analyze such potential causes metacritically in terms of an identification of the absence of transcendentally necessary categories or concepts undergirding the articulated contradictions.68 More specifically, I identify theory–practice inconsistencies or internal contradictions in both integral theory and critical realism, expose some of their problematic effects in praxis, and identify their possible causes in terms of the absence of transcendentally necessary categories or concepts, which are revealed through the method of transcendental argument pioneered by Kant (1791/1998).69

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68 When the methodology of immanent critique, in the form of analyzing theory–practice contradictions, additionally identifies the cause of such contradictions in the absence of some transcendentally necessary category or concept, this is known in dialectical critical realism as a metacritique, (see e.g., Bhaskar, 1994/2009).

69 See Appendix Five for a definition of ‘transcendental argument.’
Valid immanent critique demands, first, a sensibility of ‘steel manning’; that is, a principle of generosity or charity that seeks first to adequately understand—and cast in its strongest light—a position before critiquing it. Such an immanent critique could be said to have hermeneutic adequacy or validity, as opposed to inadequate ‘straw man’ modes of argumentation based on weak or false characterizations of a position. Together these methods allowed me to identify systematic category errors or areas in need of theoretical revisioning in each metatheory on the way to forging a provisional non-preservative synthesis of key aspects of critical realism and integral theory into a visionary realism that might confer greater insight into the root causes of and solution patterns to the metacrisis.

Guided by the above methods, my synthesis itself also employs a Bhaskarian transformative-sublatory dialectical method, in contrast to a Hegelian preservative-synthetic methodology of dialectic (Bhaskar, 1993/2008; Norrie, 2010). Such a methodology enables a revisioning of (aspects of) each metatheory’s architectonics, extracting negatively transfigured elements of each metatheory and weaving them together into an emergent conceptual field (namely, a visionary realism). It is important to underscore that this method eschews and remedies absences and contradictions in each theory’s pre-existing form (‘absenting the absences’) before integrating them. The resulting visionary realist ‘synthesis,’ therefore, should be understood in this explicitly non-preservative or transformative sublatory sense. At an earlier point in my research and writing process, I referred to the metatheory I was developing as a Critical Realist Integral Theory (CRIT), as it is referred to in discussing the history of the dialogues between the two metatheories (in Appendix Two), because it was initially a more
preservative synthesis of them. However, as my literature study and dialogical inquiries evolved, the asymmetries and areas in need of negative transfiguration became increasingly glaring. I began to see the need to move beyond the more clean, symmetrical mode of Hegelian-Wilberian preservative synthesis (which can run the risk of glossing over real contradictions and absences, falsely espousing inter-paradigmatic commensurability where none in fact exists), and employ a Bhaskarian, complex, asymmetrical, dialectically negative mode of synthesis or sublation that honours the aporias, lacunae, and overall elements of incommensurability revealed through the dialectical encounter. In doing so, I realized that my non-preservation approach to synthesis contained substantial moments of negative transfiguration and emergent innovation, amounting to novel, transcendent features. As such, labelling this synthesis a CRIT began to seem out of step with the reality of my approach, and the notion of a ‘visionary realism’ emerged and came into focus as a more accurate descriptor. It is important to underscore, nonetheless, that visionary realism is still a synthesis (albeit emergent and non-preservation) of critical realism and integral theory—and is therefore deeply indebted to them and their key theoretical innovations.

In summary, this thesis utilizes a philosophical methodology of hermeneutical dialectics. Under this methodological umbrella, I deploy the methods of: 1) in-depth hermeneutic literature study to engage in an exegesis of the metatheoretical canons of critical realism and integral theory; and 2) an in-depth hermeneutic dialogue in and around the Critical Realism & Integral Theory Symposium series. This broad methodological approach allowed my inquiry and provisional understanding to evolve in the iterative-reflective manner of a hermeneutic circle or spiral,
arriving eventually at a philosophical method of *immanent critique*, which also deploys the method of *transcendental argument*. Finally, these methodological orientations logically flowed into a *transformative-sublatory dialectical* method of (non-preservative) synthesis in forging a visionary realist metatheory.

Having introduced the overarching argument of this thesis, including the context, aim, rationale, research questions, and methodology, I will turn now to the contextual discussion and articulation of my metatheoretical framework, beginning with a general discussion of metatheory and the emergence of integrative knowledge.
CHAPTER 2—Metatheory and the Emergence of Integrative Knowledge

[In the twenty-first century], there will be an urgent need for scholars who go beyond the isolated facts; who make connections across the disciplines; and who begin to discover a more coherent view of knowledge and a more integrated, more authentic view of life.

Ernest Boyer

There is nothing so practical as a good theory.

Kurt Lewin

If metatheory is to be advanced as a field that can deliver on its potentials as an integrative, realist, emancipatory, and visionary force that can help us to transform our collective self-understanding and forge the holistic solution patterns needed to address the metacrisis, more work is needed for it to be clarified, defined, and revindicated as a legitimate field of inquiry. In this chapter, I will discuss the contemporary emergence of integrative knowledge and situate metatheory therein, offering a general discussion of metatheory, including its nature and definitions, and a synoptic sketch of its history and critiques. In doing so, I situate the contemporary rise of integrative metatheory, or integrative metatheory 2.0, in relation to contrasting historical inflections of metatheory, thus providing context for understanding critical realism and integral theory and situating the development of a visionary realist metatheory apt for addressing the twenty-first century metacrisis.

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70 Boyer, 1994, p. 118.
71 Lewin, 1951, p. 169. Molz (2016) raises the question of “how we can expand Kurt Lewin’s famous adage from ‘there is nothing so practical as a good theory’ to ‘there is nothing so practical as a good metatheory’” (p. 302)—an inquiry I share in.
72 ‘Integrative metatheory’ has also been called ‘integral’ metatheory or philosophy (Arnold & Gasson, 1954; M. G. Edwards, 2010b; Solovyov, 1877/2008; Sorokin, 1958; Stein, 2019a; Wilber, 2006). As we will see, I prefer the term integrative metatheory over ‘integral’ metatheory or ‘philosophy’ as it implies: 1) a broader category than ‘integral’ metatheory, which Ken Wilber has attempted to associate with his particular ‘brand’ of metatheory and therefore could confuse the issue, given that I am using the term to refer to a broad genus of metatheory, not a specific species (e.g., Wilber’s “Integral Theory”); 2) ‘integrative’ connotes integration as an ideal that is to be ardously strived for, not something that has necessarily already been achieved (e.g., as a necessary function of transcendence), as is arguably implied in the term ‘integral.’
Integrative metatheory 2.0 stands in contrast with ideology, expressed in both the speculative and dogmatic onto-theological metanarratives of premodern metaphysics, and integrative metatheory 1.0, or the totalizing monism of modernity's scientific metatheorizing. Likewise, integrative metatheory 2.0 is contextualized and (re)vindicated vis-à-vis the (anti-)metatheoretical critiques of the postmodernists. Upon setting this historical context, I then articulate the contours of integrative metatheory 2.0, delineating a set of interrelated metaparadigmatic principles or criteria intended to guide and shape metatheoretical research programmes that seek to contribute to an adequate understanding of the metacrisis and the eudaimonistic flourishing of humanity-in/as-nature. While all paradigms or 'research worldviews' (Creswell & Plano Clark, 2011) necessarily involve some presuppositions about the nature of being, knowledge, and values, my articulation of integrative metatheory is not a closed totality regarding the nature of metatheoretical inquiry. Rather, I acknowledge that there are many forms, definitions, and reconstructive perspectives on the nature of metatheory and honour this theoretical pluralism and open totality in the spirit of integrative pluralism (see e.g., Dallmayr, 2010; Mitchell, 2004, 2009; G. Ritzer et al., 2002). Integrative metatheory, then, is understood here as a broad genus of metatheorizing occupying a particular niche aimed at facilitating various emancipatory or soteriological interests in the face of the metacrisis. It therefore stands in distinction to its specific species, such as critical realism and integral

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73 Such postmodern critiques are, of course, themselves totalizing metatheoretical metanarratives that ironically attempt to eclipse precisely such big-picture metatheories. In fact, some theorists specifically view postmodernism as metatheory (see e.g., Alvesson & Sköldberg, 2009, p. 276).
The visionary realist metatheory that I am developing in this thesis can best be understood as a ‘mutant hybrid offspring’ of critical realism and integral theory. As such, it is important to articulate some historical context of the dialogical encounter between critical realism and integral theory to illuminate the procedures and critical background horizon of dialogical meaning-making that led to the emergence of their modified synthesis in a visionary realism, which I discuss at length in Appendix Two.

Metatheory and the Emergence of Integrative Knowledge

There is widespread concurrence amongst contemporary academics that the complex problems our world faces are driving the need for integrative, interdisciplinary knowledge (Bammer, 2013; Creswell & Plano Clark, 2011; Holland, 2014; National Academy of Sciences (U.S.) et al., 2005). As Holland (2014) states, based on extensive literature review and original interview research, “most scholars seem to agree that what justifies the production of integrative, interdisciplinary research is the complexity of reality” (Holland, 2014, p. 11). Beyond interdisciplinarity as such, however, there are many important approaches emerging across the planet that have contributed to the integration of knowledge to address the complexity of reality in the face of widespread disciplinary and methodological fragmentation (Bammer, 2013; Esbjörn-Hargens, 2016; Hedlund, 2010b). These include: multi-, cross-, trans-, and post-

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74 The notion of integrative metatheory that I am developing here is similar to what M. G. Edwards (2008; 2010b; 2013) calls the ‘clearing’ of integral meta-studies in which a variety of metatheoretical research projects can be pursued. Edwards’ scheme for an integral metastudies or metascience is compelling as an orienting frame for the field. I, however, propose a broadening of the notion to include philosophical modes of metatheorizing, as I discuss in this chapter below. These philosophical modes would nonetheless be subject to the four strands or phases of valid knowledge (injunction/method; data analysis; data interpretation; social validation/falsification), as articulated by Wilber (1998), then expanded and articulated in the context of integral meta-studies by Edwards as meta-methodology, meta-data analysis, meta-hermeneutics, and meta-validity, respectively.
disciplinarity; post-normal science (Funtowicz & Ravetz, 1991, 1992, 1993; Petersen et al., 2011); mixed methods approaches (Creswell, 1998; Creswell & Plano Clark, 2011; R. B. Johnson & Onwuegbuzie, 2004; Tashakkori & Teddlie, 1998); developmental action-inquiry (Torbert, 1991, 2000a, 2000b, 2001, 2004); action research (Chandler & Torbert, 2003; Reason & Bradbury, 2001; Reason & Torbert, 2001); Ronnie Lessem and Alexander Schieffer’s (2008) integral worlds Trans4M model of integral research; systemic intervention (Midgley, 2001); integrated assessment modelling (Parson, 1995); team science (Bennett et al., 2010; Trochim et al., 2008); earth systems science (Earth, 2014); biological “integrative pluralism” (Mitchell, 2003, 2004, 2009); the “synthetic philosophy of contemporary mathematics” (Zalamea, 2013); “integrative thinking” in organizational development (Martin, 2009); “cybersemiotics” (Brier, 2013); Bryan Norton’s (2005) approach to sustainability through adaptive ecosystem management; “interpersonal neurobiology” (Siegel, 2012); “transmodernism” (Dussel, 1995, 2002); “integration and implementation sciences” (Bammer, 2013); meta-analysis (Cooper, 2009); and systematic review (Gough et al., 2013) to name some.

These integrative approaches, however, have generally been developed within a single discipline or knowledge domain, or between a limited selection of them. And to the extent that they do engage in some form of inter-/multi-/cross-/trans-disciplinarity, they often do so in a somewhat eclectic, fragmented, or muddled manner—without a coherent overarching framework—which cannot adequately engage the needed process of systematic cross-paradigmatic dialogue and synthesis. Without a comprehensive metatheoretical framework, how will researchers understand the systematic interrelationships between the many
disciplines and methodologies related to their research questions, and how to integrate their findings? In the absence of an overarching connective framework, interdisciplinary researchers tend to employ somewhat idiosyncratic and arbitrary methods for their inquiries, which can lead to incoherent or fragmented results that are themselves largely non-assessable, since their methods are often not made conscious and transparent (M. G. Edwards, 2010, p. 20). In this way, the tendency toward a kind of tacit reductionism, wherein researchers unwittingly make their own disciplinary bias paradigmatic for other disciplines, is of concern here. Furthermore, as Holland (2014) argues, interdisciplinarity conducted within positivist, interpretivist, or postmodernist frameworks tends to be ridden with theoretical aporias and inconsistencies that amount to theory–practice contradictions. Only interdisciplinarity implemented within coherent and explicit metatheoretical frameworks (such as critical realism), he argues, can resolve such problems (also see, e.g., Bhaskar, 2010; Bhaskar & Danermark, 2006; Bhaskar et al., 2018). And yet, as Bhaskar et al. (2018) note, “there is a worrying lack of metatheory in discussions on interdisciplinarity” (p. 3). Interdisciplinary endeavours that lack metatheoretical coherence tend to produce results that can sometimes be pragmatically useful for addressing micro- or meso-level problems but are of limited utility when it comes to studying complex totalities generally, developing comprehensive and coherent visions of the world and humanity’s place in it, and practically addressing the planetary-level concatenated set of problems and their overlapping aetiologies that constitute the metacrisis. The lack of metatheory in interdisciplinary endeavours translates to an impoverishment of research—typically due to reductionism or atomistic eclecticism—and therefore an impoverishment of practice in addressing real-world challenges (Bhaskar et al., 2018).
Thus, I argue that metatheoretical approaches are—and will increasingly become—crucial for moving beyond the limitations of interdisciplinary ‘research as usual.’ If interdisciplinary inquiry is to effectively actualize its potential for producing integrative knowledge in service of understanding and addressing the complex challenges of the metacrisis, it needs a solid and explicit metatheoretical foundation. The specialization that allowed the modern research university to flourish in a modern context led to fragmentation in a postmodern context, and is now giving way to integration in a post-postmodern or ‘metamodern’ context (Andersen, 2019; Freinacht, 2017, 2019; Rowson & Pascal, 2021; Stein, 2018b). If the academy is to thrive as a guiding cultural light as we move increasingly into the transformative tumult of the metacrisis, it will be largely because it adaptively becomes better and better at big-picture, interdisciplinary sensemaking—and communicating its findings in compelling ways in the public sphere. The academy is faced with a choice: to lead the way and help navigate the metacrisis toward planetary flourishing, cultivating responsible global citizens and agents of transformation, or to become an increasingly anachronistic, hyper-specialized relic of a dying modernist system that continues to ‘produce,’ on a student level, economic labourers and consumers (Maxwell, 2014b) in accord with ‘reductive human capital theory’ (Stein, 2013, 2019a), and, on a faculty level, higher and higher quantities of lower and lower quality

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75 Such explicitly metatheoretically structured interdisciplinarity is being developed within the stream of critical realism (Bhaskar, 2010; Bhaskar & Danermark, 2006; Bhaskar et al., 2018; Bhaskar et al., 2010). Technically, all interdisciplinarity must deploy a metatheory or ‘research worldview,’ at least implicitly, such as (post)positivism, (social) constructivism, or pragmatism (Creswell & Plano Clark, 2011, p. 42). Pragmatism, understood as a kind of ontological agnosticism or pluralism, is seen by some (see e.g., Creswell & Plano Clark, 2011) as a leading research worldview for mixed methods and interdisciplinary research. However, as I hope to clarify throughout this thesis, anything short of a fallibilist (or critical) realism will be marred by intractable theoretical and practical problems (see e.g., Holland, 2014).
published research.\textsuperscript{76} And, I argue, metatheory will play an indispensable role in supporting more and more comprehensive and systematic integrative knowledge that can address real-world problems that themselves transcend disciplinary boundaries.

The world has become so complex and interconnected that none of the major challenges of the twenty-first century are merely disciplinary challenges—they are all fractals of the metacrisis as a whole. Take, for example, the COVID-19 crisis: an epidemiological public health crisis cannot be adequately understood from a merely biological or epidemiological disciplinary perspective. Rather, as we clearly have seen, a pandemic public health crisis is also an economic, geopolitical, cultural, psychological, and epistemic crisis, demanding at a minimum integration of insight from biology/epidemiology, economics, political science, sociology, psychology, and philosophy. Our planetary socio-ecological systems are all radically interlinked, as a crisis in one system sends cascading feedbacks across all systems. As such, if academic inquiry is to be relevant in the coming decades wherein such systemic interdependence and fragility will almost surely be corporealized and experienced viscerally by every person on the planet, and reason may become increasingly eclipsed, it must engage the vision of integrative meta-level understanding in service of planetary transformation and flourishing. That is, it must cultivate the ‘scholarship of integration’ translated into practical wisdom that gets results: an integrated metatheoretical ‘scholarship of engagement,’ to borrow Boyer’s (1990, 1994) terms. What has been labelled ‘metatheory’ is merely an intellectual attempt to point to the kind of knowledge that we need to actually understand the complexity of our rapidly changing world in a way that

\textsuperscript{76} See Chapter 7 below for further discussion of metatheory and education.
is anywhere near adequate for mounting coordinated and effective transformative responses.

And yet, only a small number of approaches to interdisciplinary, integrative knowledge or the scholarship of integration deploy an explicitly metatheoretical approach. And an even smaller number still attempt a *panoptic* or integrative approach to metatheory, which aims to include or encompass, at least in principle, all the general domains or ‘cultures’ of human knowledge—from the humanities to the social and natural sciences (Kagan, 2009). These approaches of “meta-integration” (Esbjörn-Hargens, 2016) are exceedingly pertinent for our twenty-first century metacrisis, as they bring an eye for the wholeness of human knowledge in all these domains and attempt to forge a coherent ‘big-picture’ view of reality that systematically links them. These are the ‘heavyweight’ integrative metatheories of our time: the philosophy of critical realism, founded by Roy Bhaskar (1944–2014), and its cognate social theory; integral theory founded by Ken Wilber (b.1949–); as well as complex thought, founded by Edgar Morin (b.1921–). These three metatheories represent some of the most advanced expressions of

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77 Other approaches that attempt to garner all forms of human knowledge into a unified framework include the physicist Erwin Schrödinger (1887–1961) and the philosopher Paul Ricoeur (1913–2005). Engagement with their ideas, however, is beyond the scope of this thesis. There are, of course, also numerous gross reductionisms and integrative monisms that lay claim to a so-called ‘unified’ explanatory framework. For example, there are interpretations of classical and quantum physics that have argued that biological and social levels of reality can be explained solely in terms of the mechanics of physics. Likewise, there are sociobiological instantiations of metatheory that tend towards a totalizing approach. For example, E. O. Wilson’s (1998) theory of consilience which seeks a unity of all knowledge, while arguably committing a kind of sociobiological reductionism; and neuroscientific eliminative materialism claimed to have usurped psychology by explaining human consciousness and behaviour solely in terms of neurophysiological variables (see e.g., Churchland, 2013). Such theories are monistic and totalizing in their approach to problems of theoretical pluralism and are therefore not considered to be integrative metatheories.

78 For short introductory overviews of each of these metatheories, see N. H. Hedlund-de Witt (2012) for critical realism, Esbjörn-Hargens (2010b) for integral theory, and Montuori (2013) for complex thought.
contemporary, macro- or planetary-level\textsuperscript{79} integrative knowledge that encompasses and/or articulates an orienting metatheory for all domains of human inquiry. In order to situate and valorize the status of these metatheories—and that of an emergent visionary realism—a deeper discussion of the nature of metatheory and its geo-historical context is needed. I will begin by looking at the nature and definition of metatheory.

\textit{What is Metatheory?}

Following the prefix ‘meta,’ I define metatheory (as stated above) broadly as \textit{theory about or beyond theory}—a systematic descriptive-explanatory lens about or beyond a systematic descriptive-explanatory lens.\textsuperscript{80} It is important to note, however, that there is no generally agreed upon overarching theoretical definition of metatheory that encompasses the major

\textsuperscript{79} See Bhaskar (2010, pp. 9-10) for a discussion of his hierarchy of scale (or seven scalar social being), including the “planetary” levels of analysis, above the ‘mega,’ ‘macro,’ ‘meso,’ ‘micro,’ individual,’ and ‘sub-individual’ levels.

\textsuperscript{80} The prefix ‘meta’ (from the ancient Greek) refers to that which is “after, behind, between, or beyond” (OnlineEtymologyDictionary, 2020a), with ‘beyond’ arguably standing out as its primary early connotation. In the early twentieth century, ‘meta’ took on a self-reflexive or recursive connotation (i.e., ‘an X about X’). It is also worth noting that ‘theory’ (from the Greek \textit{theōria}) originally meant a “view, seeing, or looking at” (OnlineEtymologyDictionary, 2020b)—essentially, a lens or perspective. In the modern period, ‘theory’ has come to generally be understood as a system of explanatory suppositions or ideas—a descriptive-explanatory lens. Taken together, metatheory can be understood as a systematic descriptive-explanatory lens (\textit{theory about or beyond a systematic descriptive-explanatory lens (theory)}). This definition is similar to that of Vandenberghe (2022), who usefully defines it as “theory about, above or beyond theory” (p. 3). Vandenberghe specifies an understanding of metatheory in a three-fold sense: “as an overarching worldview (metatheory\textsubscript{1}), as a mapping device (metatheory\textsubscript{2}) and as a propaedeutic to substantive theorizing (metatheory\textsubscript{3})” (p. 3). His distinction of these three types of metatheory is useful indeed. However, I offer an account that emphasizes the distinction between philosophical and scientific types of metatheory, as we will see below. For Vandenberghe, however, his three types are conceived of as fusions of science and philosophy, with the key distinction between critical realism and integral theory, in his view, being found not at the level of the philosophy-science fault line, but, following the insightful analyses of Hans Despain (2013; 2014), at the level of what Bhaskar (1993/2008) calls ‘metacritique.’ Because critical realism includes axiological and political metacritique, Vandenberghe argues, critical realism constitutes a “metatheory 2.1” (p. 4). I argue that it is important to differentiate philosophical and scientific modes of metatheory, given their differences on the level of methodology and validity criteria. In the wake of such differentiation, they can be convincingly integrated. Otherwise, a fused or ambiguous blend of philosophy and science deficient in nuanced methodological self-reflection—what Edwards calls ‘traditional scholarship methods’—can reasonably invoke scepticism and critique, thereby potentially undermining the methodological rigour, validity, and cultural stature of metatheory.
types of metatheory in practice. Anyone who explores the field will quickly learn that—rather ironically—there is a sprawling pluralism of definitions and practices employed under the auspices of the signifier ‘metatheory,’ often fragmented and isolated from each other, and invoking divergent referents. In a review of over 20 social scientific definitions of metatheory, Steven Wallis\(^81\) (2010) observed that many authors had divergent definitions: “while some were describing the broader field of metatheory, others were describing related, yet subordinate, areas of metatheory such as evaluation or categorization of metatheory” (p. 76). While in some sense such pluralism could be understood as perfectly healthy and valid, in my view, its related fragmentation also inhibits the consolidation and advancement of the field as a coherent meta-discipline. The field would arguably benefit from a more encompassing definition and understanding of the nature of metatheory that is inclusive of the plurality while beginning to link the various approaches in an overarching taxonomic framework. To sift through all the usages of metatheory exhaustively and systematically would be a daunting project, however, and one that is well beyond my scope here. I will suffice to offer a provisional construal that can encompass what I see as the major types in an integrative understanding.

There are at least two major architectonic genres of metatheory: *philosophical* metatheory and *scientific* metatheory. Generally speaking, philosophical metatheory addresses the ground or foundations of empirical-scientific inquiry, while also playing a normative-adjudicating role in relation to it, while scientific metatheory refers to a kind of overarching or global super theory

\(^81\) Note that Wallis collaborated in the research process with Mark Edwards.
that operates on, coordinates, and integrates more local, discipline-bound empirical theories.\textsuperscript{82} I will delineate these in turn, beginning with philosophical metatheory, before articulating a provisional integrative taxonomic framework that highlights the important and complementary role that each can play in the disclosure of reality as a whole and the advancement of an integrative metatheory apt for the metacrisis.

On the one hand, a prominent scholarly stream has invoked metatheory principally as a form of \textit{philosophical} inquiry (see e.g., Araújo et al., 2017; Bates, 2005; Bhaskar, 2018; Bhaskar & Danermark, 2006; Bullock, 1988; Stein, 2010, 2016a, 2019a; Talka & Pape, 1985; Vakkari, 1997; Wagner & Berger, 1985). On this view, metatheory tends to be viewed as a mode of philosophy that systematically analyzes the fundamental ontological, epistemological, methodological, and axiological presuppositions (premises or assumptions) that undergird empirical scientific theory.\textsuperscript{83} For example, Talka and Pape (1985) argue for a definition of metatheory as “the cluster of fundamental, but often implicit, presuppositions that underlie or embed a theory” (p. 75), while similarly for Bhaskar and Danermark (2006), “a meta-theory specifies the ontological, epistemological and methodological presuppositions at work in a kind of scientific practice” (p. 5). In this way, philosophical metatheorizing has significant referential overlap with philosophy of science, while also playing an important role as a normative, discourse-regulative, or adjudicating philosophical enterprise (see e.g., Stein, 2010, 2016a, 2019a).

\textsuperscript{82} See Appendix Five for a definition of ‘science,’ including science\textsubscript{1} and science\textsubscript{2}.

\textsuperscript{83} This philosophical understanding of metatheory is similar to some general definitions of philosophy at large (see e.g., Quinton, 2005).
On the other hand, there is a stream of scholars that have invoked metatheory principally as a *scientific* approach (see e.g., Colomy, 1991; M. G. Edwards, 2008, 2010; Fiske & Shweder, 1986; Overton, 2007; Paterson et al., 2001; Ritzer, 1988, 1990, 1991, 2001; Turner, 1998). In general terms, this scientific understanding of metatheory views it as overarching theory that takes theory (and method) itself as its ‘data,’ rather than the first-order disclosures of the world (as typical scientific theory does). As Overton (2007) puts it, “[t]heories and methods refer directly to the empirical world, while metatheories refer to the theories and methods themselves” (p. 154). In this sense, metatheatery is therefore tasked largely with coherently interpreting, organizing, and integrating multiple middle-range, empirical theories into a higher-order theory. Within the context of such overarching scientific metatheatery, Mark G. Edwards (2010b, p. 40) has articulated a ‘holarchy of sensemaking’ composed of progressively more abstract levels of sensemaking that interact recursively: the empirical (characterized by immediate experience and symbolizing); the theoretical level (characterized by conceptual understanding and development of middle-range theories and models that describe or explain the empirical); and the metatheateryical level (which reflects on the relations between different theories, research programmes, paradigms, or disciplines and attempts to integrate them into a coherent whole). Some scholars define metatheory more broadly; for example, Barbara Paterson and her co-authors (2001) define metatheory in the context of social-scientific health research as follows: “[m]eta-theory is a critical exploration of the theoretical frameworks or lenses that have provided direction to research and to researchers, as well as the theory that has arisen from the research in a particular field” (p. 91). Similarly, the sociological metatheateryist George Ritzer (1988, 1990, 1991, 2001) has articulated a robust approach to social scientific
metatheorizing, defining (1988) metatheory as “the study of theories, theorists, communities of theorists, as well as the larger intellectual and social context of theories and theorists” (p. 188). Ritzer (1991) articulates three types of metatheory: 1) *overarching* scientific metatheory that integrates extant theories into a coherent whole (the primary type of scientific metatheory referenced above)—Ritzer’s M_o; 2) metatheory for *understanding* extant theories and paradigms (e.g., in a review of literature to inform research design and theory development)—Ritzer’s M_u; and 3) metatheory as *preparation* to new (middle-range) theory development (e.g., Marx’s development of his theory of capitalism through the analysis and critique of extant theory in political economy, philosophy, and utopian thought)—Ritzer’s M_p. Paul Colomy (1991), situating metatheorizing in the context of postpositivist social science, articulates a fourth type of metatheory to help mediate conflicting and competing theoretical claims: *adjudicating* metatheory, which critically evaluates and judges the conceptual adequacy of other theories (and metatheories)—Colomy’s M_A. In my view, however, adjudicating metatheory (M_A), as I will address below, is more aptly understood in relation to philosophical modes of metatheory, though it operates at its nexus with scientific modes. While all these forms of metatheory are important, overarching metatheory clearly stands out as the major type of scientific metatheory, with metatheory for understanding (M_u) and metatheory as a preparation (M_p) for new middle-range theory being minor types.

Finally, it is important to note that while metatheory is most prominently discussed in the social sciences (particularly sociology), scientific metatheory is not only social-scientific. Metatheory
has likewise been deployed as a scientific mode of inquiry in the context of *natural science*:\(^{84}\) for example, Ludwig Von Bertalanffy’s (see e.g., 1969) general systems theory (and its descendants in ‘dynamic’ and ‘developmental’ systems theories), and at broader paradigmatic levels in terms of ‘mechanistic’ and ‘organismic’ metatheories (Overton, 2007). Also Neppe and Close’s (see e.g., 2014) work could be considered an example of a metatheory that focuses predominantly on the natural sciences (physics in particular). Metatheorizing, while commonly practiced in natural-scientific theorizing (e.g., in literature reviews, meta-analyses, and systematic reviews), is rarely explicitly thematized as such.

Thus, while metatheory has two primary modes—philosophical and scientific—it is also important to note that it has expressions that span all three of the general domains or ‘cultures’ of human knowledge (Kagan, 2009)—from the natural sciences to the social sciences to the humanities.

These two primary modes of metatheory—philosophical and scientific—however, are often siloed, or seen in opposition to one another, or both; for example, some proponents of scientific metatheory disregard, disparage, or underemphasize the importance of philosophical metatheorizing, and vice versa. It is clear, however, that they are both valid modes of inquiry that engage in the production of distinct forms of critically rational, scholarly theory about or beyond theory. I argue that these two modes are not antinomies: they are both

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\(^{84}\) According to Overton (2007), in a natural-scientific context, “a metatheory is a coherent set of interlocking principles that both describes and prescribes what is meaningful and meaningless, acceptable and unacceptable, central and peripheral, as theory—the means of conceptual exploration—and as method—the means of observational exploration—in a scientific discipline” (p. 154).
equally valid, partial, potentially commensurable, and indeed essential in the development of an integrative metatheory that can disclose the big-picture of reality as a whole. Scientific metatheory devoid of conscious engagement with philosophical metatheory is naïve to the foundations of empirical theory and subject to the unconscious reproduction of inadequate metaphysical presuppositions (viz., that of naïve realism/positivism, social constructivism, etc.), while philosophical metatheory without the integration of science and scientific metatheory remains highly abstract and general, and therefore is limited in terms of its substantive granularity and practical agency.

**Integrating Philosophical and Scientific Metatheory**

Scientific metatheorists sometimes make a point of differentiating their endeavours from that of philosophy, likely in an effort to confer greater legitimacy to the field. Metatheory, on this view, is based on methodologically sound empirical evidence and social validation. For example, M. G. Edwards (2010b) states that “metatheorising of this kind is a scientific enterprise, not a philosophical one. It offers understandings and explanations based on the analysis of its ‘data,’ that is on other theories, rather than on reasons derived from first principles” (p. 39). Philosophy, for M. G. Edwards (2010b; 2016), is derived from self-referential internal logics (e.g., first principles), while science refers to empirical and conceptual data. On this view, it seems to be implied that science has an epistemological and methodological leg up on philosophy, since it is empirically grounded and *a posteriori*, rather than merely self-referential in accord with its own *a priori* foundations. However, I argue that such a scientistic view that takes the methods of the sciences as the exemplar for all knowledge not only holds science to be methodologically superior, but it also exaggerates the differences between scientific and
philosophical metatheory and seems to underappreciate the sophistication of contemporary methods of philosophical reasoning (e.g., transcendental methods), which are grounded in rational meta-philosophical criteria or standards of social validation or evaluation that are not merely internal nor foundationalist (Rescher, 2001, p. 31). Philosophical metatheories are, rather, evaluated based on a combination of internal, cognitive criteria (e.g., presentational and evidential) and external, practical criteria (e.g., consequential and applied) (Rescher, 2001). Internal criteria include, for example, rational and systematic reflexivity, internal and systemic coherence, transcendental-retroductive (or apodictic) necessity, while external criteria include practical adequacy/‘seriousness,’ eudaimonia (or the degree to which it supports the flourishing of the individual and collective), and the degree to which a philosophical metatheory accords with enlightened common sense. Moreover, the notion of a priori ‘first principles’ or philosophical foundationalism\(^\text{85}\) from which larger theories are deduced based on untethered speculation or dogmatic assertion in classical philosophy is supplanted in contemporary philosophical metatheory by the conclusions of retroductive-transcendental arguments or immanent critiques based on geo-historically relative premises that are given in (empirical) experience. Such non-foundationalist conclusions, much like those of scientific metatheory, are therefore not only somewhat tethered to the empirical world but are also fallible and open to ongoing social validation and critique. In short, some contemporary methods of (critical) philosophical metatheory have substantial resonance with their scientific counterparts than is

\(^{85}\) Philosophical foundationalism is the view that attempts to resolve the epistemological problematic by founding knowledge in some basic unquestionable ‘truth’ or first principle upon which further claims about reality can be built or deduced (Hartwig, 2007, p. 211).
often appreciated. Likewise, scientific methods of metatheorizing are more philosophical (at least in a parasitic sense) than typically understood.

*Metaphysical Presuppositions in Science*

Scientific (meta)theory, in fact, necessarily rests on *a priori* metaphysical presuppositions that are clearly themselves not empirically grounded in a directly referential sense (see e.g., Bhaskar, 1975/2008b, 2018; Burtt, 1954; Rescher, 2001). For example, the notion of ‘objectivity’ in a classical sense is an *a priori* metaphysical presupposition, which assumes, *inter alia*, that the practice of experimental science does not alter the reality in which the experiment is conducted. But altering the open-systemic reality in which the experiment is conducted (to create a closed-system) is precisely the point of the experiment—experimental activity that does not alter the open-systemic reality in which it is conducted would be unintelligible (Bhaskar, 1975/2008b). Other metaphysical assumptions of some forms of science include the notion that anything that is real possesses what Whitehead (1926/1967, p. 49) called “the property of simple location in space and time” and can (at least in principle) be quantified and empirically measured, as well as the idea that nature can be objectively described or explained by universal mathematical laws inductively inferred from observed empirical regularities or constant conjunctions of events in a closed-systemic experimental context. Moreover, the positivist, empirical verificationist claim that only propositions that are verified empirically are real or meaningful is likewise a metaphysical one. This claim clearly contradicts the logic of scientific discovery, since new phenomena that were previously

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86 Due to this understanding and critique of the positivist notion of objectivity, Bhaskar deploys the notion of ‘transfactuality’ as a more nuanced way of referring to the prior and independent existence of objects.
unverified (and presumed to be not real) were later discovered and verified empirically.

Another metaphysical presupposition of science is that there is a real world that exists prior to and independent of our knowledge of it and therefore there is some true answer to a research question (i.e., ontological realism). This, in turn, presupposes that there are also possible false answers to the research question (i.e., epistemic fallibility and relativity). It also presupposes an ontological-axiological position that truth is better than falsity, and the position that it is possible to judge a true answer as better than a false answer to the research question (i.e., judgemental rationality). Any attempt to claim that a research question or hypothesis does not entail a presupposed ontological realism, epistemological relativity, and judgemental rationality is clearly absurd—since there is really no point in posing a research question if there is, for example, no real or true answer and thus capacity to judge between better or worse answers.

But what some scholars seem to miss is that the philosophical nature of the foundations of science does not imply that such foundations are merely self-referential, or that there are no critical or rational grounds from which to judge some metaphysical claims as better than others (viz., true or false). The controversial nature of such metaphysical presuppositions is not avoided by pretending that science is possible without such presuppositions—quite the contrary. Rather, the task becomes to bring the spirit of critical reason and procedural rationality—arguably at the core of a scientific or scholarly sensibility—to critically bear on the necessary pre-empirical, philosophical foundations of empirical inquiry, bringing to light the methodological questions in the philosophy of science surrounding the a priori ontological and epistemological foundations of science—precisely the task of (critical) philosophical metatheory. Thus, in contrast to those scientific metatheorists who argue that metatheory
should avoid philosophy, I argue that it is well established that there is no such thing as a *purely* scientific metatheory divorced from philosophical metatheory, since *a priori* ontological, epistemological, and axiological presuppositions inexorably form the foundation of all scientific endeavours, as is demonstrably apodictic (see e.g., Bhaskar, 1975/2008b).

Moreover, when philosophy deploys transcendental arguments, it takes on a form that cannot be convincingly considered to be merely self-referential, but rather assumes a ‘syncategorematic’ character, implying that it does not stand on its own, but only makes sense in the context of geo-historically relative, empirically given phenomena, such as the activity of experimental science (Bhaskar, 1979/1998, p. 50). Reference to the world is certainly secured in a less immediate, or ‘proxy-referential,’ way in the context of transcendental methods in philosophy, which take as their starting point the geo-historically relative, experimental activity of science and the possibility of knowledge. But science deploys a retroductive procedure that is very similar in essence to the transcendental arguments of philosophy (transcendental argument being a species of the genus of retroduction). In the case of both philosophical and scientific metatheory, the basic procedure is essentially the same: describe some empirically given phenomenon or pattern of events, imaginatively retroduce a systematic explanatory model of the potential cause(s), generative mechanism(s), or necessary conditions, eliminate competing explanations, identify the principal generative mechanism(s) that necessarily create the conditions for or cause the pattern of events or empirically given phenomenon, and ongoingly correct the model in light of new findings (Bhaskar, 1979/1998; Danermark et al., 2002). Comparative study in the methodology of scientific and philosophical methods of
retroduction reveals convincing procedurally rational avenues for generating valid, albeit fallible, knowledge of the world via both pathways. The primary distinction, I argue, is more to do with the abstract and general (categorial) nature of philosophical knowledge derived from retroductive-transcendental methods versus the concrete and substantive nature of its scientific counterpart—but they are both procedurally rational and methodologically transparent and therefore open to ongoing social validation and falsification/critique.\(^{87}\) As Bhaskar (1986/2009) states with respect to the relationship between philosophy and science:

> just as there can be no discourse on method in abstraction from the sciences, so there can be no science in abstraction from the possibility of a critical discussion of its method. This is the *methodological circle*, twinscrewing philosophy and science (p. 19).

In this conception, philosophy and science, or philosophical and scientific modes of metatheory, are inextricably linked modes of producing critically rational, fallible knowledge about different aspects of the same world. Thus, integrative metatheory envelops and integrates both philosophy and science, understanding them as distinct yet interdependent, syncategorematic, dialectical counterparts rather than discrete epistemic modes—they are only intelligible in symbiotic conjunction. In short, philosophical and scientific methods of metatheory share significant deep structural methodological resonances, along with some notable surface structural differences, and ought to be understood as inseparable counterparts in the quest for integrative knowledge at the meta-level (see Table 1 for a synoptic overview of their methodological resonances and differences).

\(^{87}\) Indeed, as we can see through Bhaskar’s analysis and critique of Kant’s (1791/1998) transcendental arguments, as well as Groff’s (2007) and McWherter’s (2013) analyses and critiques of Bhaskar’s transcendental arguments, to name but some, there is indeed a robust social validation/falsification process in philosophical metatheory.
Having discussed the nature and definitions of metatheory, specifying its major (philosophical and scientific) types and their interrelationships, we will now turn to the history of metatheory to understand the dynamics of its revindication as a valid and even crucial mode of integrative knowledge production, before delineating an integrative taxonomic model of metatheory apt for the metacrisis.

<table>
<thead>
<tr>
<th>Philosophical Metatheory Methods:</th>
<th>Scientific Metatheory Methods:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation: transcendental retrodution</td>
<td>Explanation: empirical and conceptual retrodution</td>
</tr>
<tr>
<td>Grounded in phenomena given in (empirical) experience</td>
<td>Grounded in empirical and conceptual data</td>
</tr>
<tr>
<td>Validity criteria grounded in rational (meta-)philosophical criteria</td>
<td>Validity criteria grounded in rational philosophical criteria</td>
</tr>
<tr>
<td>Evaluation based on internal (e.g., reflexivity, coherence, transcendental necessity) and external (practical adequacy, eudaimonistic) criteria.</td>
<td>Evaluation based on internal (e.g., reliability, consistency) and external criteria (e.g., validity, reference)</td>
</tr>
<tr>
<td>Proxy-referential to the world</td>
<td>Immediately referential to the world</td>
</tr>
<tr>
<td>Procedurally rational social validation</td>
<td>Procedurally rational social validation</td>
</tr>
<tr>
<td>Proceeds from geo-historically relative premises/phenomena</td>
<td>Proceeds from geo-historically relative premises/phenomena</td>
</tr>
<tr>
<td>Syncategorematic with scientific metatheory</td>
<td>Syncategorematic with philosophical metatheory</td>
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</tbody>
</table>

Revindicating Metatheory in the Wake of Postmodernism

While there seem to be movements redressing the need for integrative knowledge, as mentioned above, the resurrection and revindication of metatheory is still structurally challenged by the continued cachet of postmodern critiques and their disdain for ‘grand theory building,’ metanarratives, etc. Metatheory first fell on hard times in the post-1960s cultural
milieu in which postmodernism and poststructuralism flourished in the humanities and much of the social sciences. Within this context there was a widespread sentiment of derision for the abstract, big-picture thinking and totalizing, grand metanarratives of the modern and premodern worlds alike, as per the French philosopher Jean-François Lyotard’s (1984) (in)famous definition of postmodernism as an ‘incredulity towards metanarratives.’ Similarly, David Harvey (1989), in The Condition of Postmodernity, writes that postmodernism eschews the notion that there exists “meta-language, meta-narratives, or meta-theory through which all things can be connected or represented” (p. 45). For Lyotard, metanarrative (métarécit) is conceived of as a totalizing or monistic overarching account or grand story about such topics as human historiography, social development, and teleology that serve to confer underlying epistemic legitimacy to cultural and social practices.

Lyotard, in addition to critiquing modernity’s metanarratives concerning notions of inevitable historical ‘progress’ and assumptions of societal ‘growth to goodness,’ discusses modernity’s metanarrative regarding the ideal of theoretical monism and scientific progress in the direction of totalization (e.g., a universal ‘theory of everything’ that supplants and marginalizes other theories). Lyotard’s deconstructive critique of this metanarrative in relation to the progression towards the totalization of knowledge has been particularly influential, remaining a crucial basis for the persistent cultural background of contempt towards metatheory as a field, since metatheory often is invoked vis-à-vis such allegedly despotic metanarratives. The idea of an integrated, big-picture meta-perspective or metatheory came to be seen as synonymous with the oppressive, totalizing, ideological metanarratives revealed by the postmodern critiques,
such as Lyotard’s. Despite the argument that postmodern theory itself is a grand, totalizing metatheory or metanarrative that has become a dominant discourse in the public sphere, the very idea of metatheory nonetheless came to be seen as passé amongst erudite academics in the wake of postmodernism—as a kind of unsophisticated intellectual anachronism that has been fatally discredited. Rather, as postmodern metatheory would have it, such global, overarching theory should be globally abandoned in favour of more localized analyses (petits récits) (Lyotard, 1984). As M. G. Edwards (2010) puts it, “the systematic development of overarching metatheory has not been in fashion for many years […] The move towards middle-range theory in the social sciences, the postmodern distrust of the ‘big-picture’ and the contemporary concern for applied and empirical research have all meant that metatheorizing has been neglected as a legitimate field” (pp. 2-3). Many of these ensuing postmodern critiques—which accused metatheories of having hegemonic, totalizing ambitions that ignored the diversity of the world and the plurality of its theoretical constructions within discourse and providing epistemic legitimation for pernicious, power-laden ideological social practices—no doubt have some important kernels of validity. In my view, however, such critiques apply largely to what I call ‘old school metatheory’ or integrative metatheory 1.0, while integration and pluralism are rethought as non-mutually exclusive possibilities in an integrative metatheory 2.0, or integrative metatheory. In order to understand contemporary metatheory and its contested status adequately, it is necessary to venture back further into the history of big-picture thinking in the premodern and modern eras.
From the dawn of humanity, our lives have been ensconced in big-picture meaning frames, ranging from the cosmogonies or creation stories of Indigenous cultures to those of premodern religion and metaphysics with the rise of the Axial age (Armstrong, 2006; Jaspers, 1968; P. A. Marshall, 2016b). These metanarratives provided purpose and coherence to cultures, but have also been tendentially coupled with various forms of oppression associated with their mythic nature (Wilber, 1995) as we moved through a spectrum of rationalization, from pre-rationality in antiquity to axial rationality in the premodern Axial period to critical rationality in modernity (Habermas, 2010; Habermas & Mendieta, 2002) and synthetic-dialectical or visionary rationality in metamodernity (Freinacht, 2017; Stein, 2018b; Wilber, 1995). The univocal ontotheological metanarratives of the premodern world tended to amount to a kind of speculative metaphysical dogmatism in their declaration of ‘facts,’ such as foundationalist, a priori categories, unchecked by the methodologically transparent procedures of transcendental or empirical analysis. These ideological metanarratives, such as that of the Roman Catholic Church, were mired in unjustified metaphysical assumptions (e.g., foundationalist first principles) which were inoculated against critique and therefore fail to meet the demands of what social theorists (Habermas, 1992; Taylor, 1989) call procedural rationality (e.g., methodological transparency, reflexivity, and social validation). According to Habermas (1992), procedural rationality is a mode of ‘postmetaphysical’\(^8\) knowledge production that came to prominence in the seventeenth century through the rise of empirical methods of the natural sciences, while expanding its influence and reach in the eighteenth century via formalism in

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\(^8\) Procedural rationality is a hallmark of Habermas’(1992, 2012) postmetaphysical approach. Habermas uses the term ‘postmetaphysical,’ while Wilber prefers the hyphenated version ‘post-metaphysical.’
moral and legal theory as well as the institutions of the constitutional state (p. 33). Its emergence was importantly linked with a project of undermining a totalizing and dogmatic tendency toward the speculative assertion of a priori, foundationalist concepts such as ‘God’ or ‘the One’ in premodern philosophical or theological metaphysics. Such a tendency was strongly associated with a kind of substantive (or theoretical) rationality whose claims were implicitly to be assessed in terms of a “rationality of contents” rather than a rationality of procedure or method concerned with “the validity of results” (p. 35). The former mode, which generates anamnestic (subjective, monological) knowledge, is associated with premodern, first philosophy or what Habermas calls “metaphysical thinking,” while the latter concerns itself with discursive (intersubjective, dialogical) knowledge and is associated with “postmetaphysical thinking,” or the epistemological and methodological transparency and rigor associated with the regulative ideals of modern science (p. 31). This kind of subjective, monological metanarrative characteristic of the premodern era is insufficiently grounded in procedural rationality, and therefore is a form of dogmatic metaphysics that displays totalizing, hegemonic tendencies and has been deeply implicated in the oppressive socio-political structures of the medieval world. As such, it cannot be considered a form of metatheory in any proper sense of the word. However, because this kind of ideological and monistic metanarrative has left its traumatic marks on the cultural psyche of the West, it is important to understand this dogmatic form of

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89 Charles Taylor (1989) also discusses the shift from substantive to procedural rationality: “[w]e could say that rationality is no longer defined substantively, in terms of the order of being, but rather procedurally, in terms of the standards by which we construct orders in science and life. For Plato, to be rational we have to be right about the order of things. For Descartes rationality means thinking according to certain canons. The judgment now turns on the properties of the activity of thinking rather than on the substantive beliefs that emerge from it” (p. 156).
metanarrative, or ‘proto-metatheory,’\textsuperscript{90} for the project of resurrecting and revindicating metatheory in the twenty-first century.

\textit{Positivist Metatheory: Integrative Metatheory 1.0}

In the nineteenth century, modern positivist metatheory emerged in the social sciences (particularly sociology), attempting to produce big-picture knowledge while going beyond the unjustified or dogmatic metaphysical thinking of premodern metaphysics and meeting the demands of procedural rationality through greater methodological transparency and reflexivity. The claims of this positivist metatheory, or \textit{integrative metatheory 1.0}, are in principle open to epistemological evaluation in the social validation/falsification or peer-review phase of knowledge production. However, while the failure to meet such demands is obvious in the case of the premodern metaphysical predecessors of modern positivist metatheory, in the case of positivist metatheory the point is more subtle. Modern positivist metatheory clearly constitutes an advance in knowledge production in that it aims to move beyond dogmatic, anamnestic knowledge and arrive at a discursive form of knowledge production that is open to the discourse of social validation, made possible by significant degrees of methodological transparency wherein the results of one’s inquiry can be democratically assessed in light of a detailed reflexive disclosure of \textit{how} they were produced. However, as Bhaskar (1975/2008a, 1979/2015, 1986/2009) has elucidated in his compelling transcendental arguments concerning the inexorability of ontology, positivist metatheory particularly, and its underlying philosophy of

\textsuperscript{90} To call a metanarrative or big-picture meaning frame a metatheory implies the use of modern critical rationality, without which it cannot be considered a theory in any proper sense.
empirical realism\textsuperscript{91} more generally, harbours an implicit ontology or metaphysics that is itself not justified via empirical or transcendental procedures. Positivist metatheory, therefore, comes closer than its premodern predecessor to meeting the criteria for procedural rationality, but given its unjustified metaphysical presuppositions, arguably falls short, nonetheless. Moreover, positivist metatheory typically displays a modified recapitulation of the totalizing tendencies of premodern metaphysics.

Such problematics, for example, are exemplified by some modern philosophers and social theorists such as the founder of positivism and sociology in their modern forms, Auguste Comte (1798–1857). Comte developed various big-picture theories, including largely speculative developmental schemes. From the vantage point of procedural rationality, these schemes were inadequately grounded in either transcendental or empirical methods. Comte’s metatheory was born largely of speculation, unchecked by the rigors of peer-review, proclaiming a unilinear, triumphalist developmental progression from ‘primitive’ stages of social evolution (‘theological’ and ‘metaphysical,’ respectively) towards the ‘civilized’ status represented by the modern West and its ‘positive’ knowledge.\textsuperscript{92} Comte’s metatheory, which at an early point in his

\textsuperscript{91} See Appendix Five for a definition of ‘empirical realism.’
\textsuperscript{92} Such simplistic ‘growth to goodness’ developmental approaches have been deconstructed by numerous (postmodern and poststructuralist) philosophers, anthropologists, and sociologists alike, largely due to their alleged Eurocentric, neo-colonial, and derogatory implications, and their commitment to an oversimplified ontological parsimony that is out of step with the complexities of the empirical evidence (De Witt & Hedlund, 2017; G. Marshall, 1998). The underpinning metaphysics of positivism is devastatingly critiqued by Bhaskar (e.g., 1989/2011). However, some scholars (see e.g., Vandenberghe, 2022) read Comte as an early integral sociologist, preceding the likes of Sorokin. I am aware that my characterization of Comte here is rather cursory. However, my intention in invoking Comte is neither to go into depth nor to construct a straw man, but rather to offer an example of an integrative monistic approach to metatheorizing. Whether or not Comte indeed was a forerunner of an integral sociology, it seems clear that he was not forging an integrative pluralistic approach, but rather one of integrative monism. This, therefore, does not meet a key criterion for integrative metatheory 2.0, as detailed
career he referred to as ‘social physics,’ modelled his approach after the mechanistic exemplar
of classical Newtonian physics, hoping that such a mechanistic vision of social science could
reveal the universal causal laws (e.g., Comte’s law of three stages) undergirding society’s
complex dynamics. Comte’s approach is thus an example of a subtly metaphysical and
ideological, monistic approach to the integration of knowledge in the form of a grand and
totalizing theory.

According to M. G. Edwards (2010b), “one central aim of modernist social science is to search
for theoretical monism” (p. 51)—what George Ritzer (2001) refers to as the aim “to discover
general laws of human society and to put them together systematically in the form of [grand]
sociological theories” (p. 116, my emphasis). This form of metatheorizing is certainly a form of
big-picture theory but is not sufficiently sensitive to the open-systemic complexity,
heterogeneity, and contingent nature of the causal forces that affect the trajectories of the
sociosphere. Moreover, such a mechanistic, abstract universalism is not grounded in a
procedural rationality; that is, a transparent methodology available for social validation
(intersubjective evaluation/falsification) in an open, democratic manner. As Edwards notes, “a
key reason that overarching theory in particular has always struggled to gain scientific
credibility is its lack of a solid methodological basis” (p. 46); to which critical realism would add
that its metaphysical assumptions are often vulnerable to transcendental critique;93 and
integral theory would add that it also lacks adequate epistemic reflexivity (e.g., situating its

below. Comte’s ‘social physics’ and synthetic approach may therefore still potentially have relevance as a ‘proto-
integrative’ metatheory, but not as an integrative metatheory 2.0 in the proper sense.
93 See Appendix Five for a definition of ‘transcendental critique.’
claims in relation to relevant structures of interiority). The proclamation of such grand metanarratives, popular in the nineteenth and early twentieth centuries, clearly grounded in unjustified Eurocentric biases and power dynamics much more than rigorous transcendental or empirical analyses—touted under the pseudo-objective guise of ‘positive social science’—has been a major contributor to the cultural trauma in the West in relation to metatheory and to the barrenness of much social science. Until recently, this postmodern concern that big-picture social science cannot be performed without the imposition of further metaphysical or ideological layers—the so-called ‘Manheim paradox’—has arrested the development of metatheorizing (Mark G. Edwards, 2016, p. 77). To be clear, such oppressive, power-laden and rationalising metatheory has little to do with integrative metatheory—viz., a metatheory apt for addressing the twenty-first century metacrisis—except insofar as the latter builds on a demonstration that the former is false, misleading, or inadequate. In fact, I hesitate to call it a ‘metatheory’ at all; its name within Bhaskarian philosophy is ‘ideology’ (see especially Bhaskar, 1986/2009).

Postmodern critiques, to their credit, have helped to illuminate some of the more subtle forms of ideology—or power claims peddled as ostensibly impartial ‘truth claims’—perpetuated by aspects of modernity’s philosophical discourse, for example in neo-classical economics underlabouring for extractive, deregulated capitalism, and (false) notions of endless growth. Such disclosure is of pronounced importance precisely because all too often we lack the deeper understanding needed to recognize the presence of such subtle ideologies which tout themselves as ‘neutral’ or ‘objective’ discourses under the guise of ‘science’ and ‘reason’ (see e.g., Zizek, 2008). That said, as we can see demonstrated in our presently post-truth culture,
these critiques are a double-edged sword: while they sometimes shed light on hidden and
genuinely oppressive ideologies (e.g., neo-classical economics), they can also easily be used to
discredit the idea of truth as such, as well as big-picture knowledge, thereby leaving us
vulnerable to their hijacking by regressive, ethno-nationalist movements touting ‘alternative
facts’ and denying valid scientific truths (e.g., the IPCC’s summaries of climate science or the
reality of COVID-19).

While modernity rejected premodern dogmatic metaphysics, postmodernism’s critiques only
compounded this rejection while simultaneously undermining the validity of scientific
metanarratives and metatheories with insufficient nuance. Consequently, we now find
ourselves in an uncomfortable and confusing vacuum of deep meaning due to the lack of
overarching narratives or big-picture meaning frames (except, ironically, that of postmodernism
itself). We thus find ourselves in an exhausted, confused, anxious, and disenchanted state
wherein the interlocking ideologies of positivism-consumerism-capitalism seems to be a default
metanarrative that is now competing with far-right authoritarian and ethno-nationalist ‘tribal’
ideologies coming in to fill the void. As the philosopher Tomas Björkman (2019) puts it:

excessive focus on identity politics and a postmodern distain for metanarratives have left us
divided and without common direction. In particular, we lack an overarching narrative to connect
the many smaller ones: a powerful metanarrative to serve as a new foundation for our shared
society that we are all co-authors of (p. 5).

Ironically, postmodernism has become a dominant metatheory and metanarrative in the West,
and we are thus witnessing the radical epistemic fragmentation, moral anomie, and existential
alienation that ensues in the sociocultural expression of its ‘anti-meta,’ anti-realist proclivities
(Wilber, 2017b). The postmodernists effectively won the post-1960s culture war, with the de-
differentiated, post-truth culture and its radical erosion of scientific and democratic principles, personified by former US president Donald J. Trump, as its logical endgame. As numerous scholars have pointed out (see e.g., Bell, 1962/2000; Bhaskar, 1993/2008; Habermas, 1987/2000; Stein, 2018b, 2019a; Wilber, 1995, 2017b), our postmodern moment is characterized less by the oppressive and monolithic ideologies of modernity and more by the deficiency or lack of big-picture metatheoretical visions and worldviews adequate to the reality of our moment. “According to this line of thought,” Stein (2019a) writes, “it is no longer the singular ideological meta-narrative of modernity that inhibits the moral evolution of the species (such as Capitalism, Communists, and the Church, etc.). It is now the absence of any explicitly shared meta-narrative or meta-theory that inhibits enlightenment” (p. 26). Clearly, following a central refrain of this thesis, we need an overarching story or metatheory of the world that can revindicate strong notions of truth and reality—a raison d’être and a grande histoire—around which we can give shape to our shared identities and social structures. The ‘ontological turn’ (see e.g., Holbraad & Pedersen, 2017) has arrived at the edge of philosophy, social science, and culture to fill the void one way or another: either in a regressive return to metaphysical metanarratives (see e.g., Land et al., 2011) that tend to serve a kind of premodern ethno-nationalist identity politics as we have seen burgeoning in the West since 2016, or in the forging of a higher-order post-postmetaphysical or metamodern metatheory that goes beyond pre-critical metaphysics, modern ideology, and the postmodern antipathy to overarching understandings of reality. It is exactly this latter mode of a sophisticated or critical return to both reality and the ‘meta’ that integrative metatheory 2.0 seeks to address.
The Rise of Integrative Metatheory 2.0

Having undergone a virtual death in the post-1960s academy wherein postmodernism was nearly hegemonic in the humanities and social sciences, big-picture metatheory began to reappear in the 1990s (Walsh, 2016), albeit often with a newfound appreciation for the complexities of the social, historical, and linguistic mediations of knowledge production, a reflexive awareness for the potential of metatheory to be a vector for hidden ideologies and power dynamics, and a respect for the burgeoning theoretical pluralism and diversity highlighted by postmodernism. In contrast to ‘old school’ metatheory (i.e., modern positivist integrative metatheory 1.0) and in keeping with an understanding of it as ideology, I propose the notion of integrative metatheory 2.0, as a broad category of metatheorizing that I argue is fit for the twenty-first century generally, and for addressing the planetary metacrisis in particular. Integrative metatheory 2.0 can be defined as a form of big-picture or integrative theory about or beyond first-order theory, at the nexus of philosophy and science, grounded in the following principles or criteria: methodological transparency and judgemental rationalism, epistemic reflexivity and relativity, ontological realism and comprehensiveness, and integrative pluralism.

Methodological transparency refers to the reflexive disclosure of the methodology and methods (or injunctions) from which knowledge claims are derived. Thus, integrative metatheory 2.0 adheres to a procedural rationality or methodological transparency that is open to ongoing rigorous assessment or criticism in terms of clearly defined validity criteria. Moreover, it sustains the possibility of judgemental rationality, which will in general depend on
ethic reflexivity and responsibility, in the context of the actuality of epistemic relativity and the necessity of ontological realism. In addition, integrative metatheory 2.0 expresses *epistemic reflexivity* in relation to the assumptions and salient epistemic structures of the research—a kind of researching the researcher—so as to both situate one’s knowledge claims therein and potentially mitigate problems of inter-individual variability and subjective bias (Hedlund, 2008, 2010b). Both methodological transparency and epistemic reflexivity enrich the dialogical process connected to the final stage of the research process—that of social validation. Given our epistemic fallibility as embodied personalities engaged in epistemically relative inquiries, one function of such practices is to enhance the peer-review process surrounding the relative validity, utility, strengths, and limitations of the knowledge claims of a given researcher. In the absence of reflexive transparency, it can be rather difficult to assess aspects of the relative validity of the ‘view from nowhere’ that many researchers implicitly assume (M. G. Edwards, 2010; Nagel, 1986). *Ontological realism* is the critical realist view that the object of inquiry is referentially detached or existentially intransitive in relation to the investigator and relatively or absolutely intransitive causally (in the social and natural sciences, respectively). Ontological comprehensiveness refers to the inclusion of all key dimensions, planes, or contours of reality known to humans—including real generative mechanisms and structures in the subjective, social, and natural domains—in the purview of one’s metatheorizing. This does not necessarily mean that one is integrating theory from all these domains per se, but rather that all these domains are considered and one’s metatheorizing is situated within this context. Finally, integrative metatheory 2.0 is an expression of integrative pluralism, as opposed to an integrative monism (as in integrative metatheory 1.0). Integrative pluralism has two
declensions, epistemological (emphasized by integral theory) and ontological (highlighted by critical realism). In regard to the problem of theoretical pluralism (for example, in the social sciences), the monistic approach of integrative metatheory 1.0 attempts to assert a singular, totalizing, abstract, and universal overarching theory that does not account either for competing perspectives or the real depth and diversity of the world. In contrast, integrative pluralism in its epistemological mode “retains an appreciation for the multiplicity of perspectives while also developing new knowledge that connects their definitive elements to build more expansive, ‘roomier’ metatheoretical frameworks” (M. G. Edwards, 2010, p. 16).

For critical realism, integrative pluralism, or developing integrative pluralism, is also and most fundamentally another name for a philosophical ontology that grasps the world as asymmetrically stratified and differentiated, dynamic and interconnected (Bhaskar, 1986/2009, p. 101).

It is by virtue of these principles that integrative metatheory goes beyond or sublates the philosophical discourse of modernity and postmodernity and can thereby be considered to be metamodern. Having sketched the broad historical trajectory of knowledge production vis-à-vis metatheory and its various critiques (see Table 2), including the principles of an integrative metatheory 2.0, we can now turn to the articulation of an integrative taxonomic framework of metatheory’s various modes.
<table>
<thead>
<tr>
<th>Premodern</th>
<th>Modern</th>
<th>Postmodern</th>
<th>Metamodern</th>
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<tbody>
<tr>
<td>Metaphysical dogmatism</td>
<td>Positivism</td>
<td>Negativism</td>
<td>Integralism</td>
</tr>
<tr>
<td>Pre-critical metaphysics</td>
<td>Metatheory 1.0 / ideology</td>
<td>Anti-metatheory</td>
<td>Integrative metatheory 2.0</td>
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<td>Procedural rationality (validity of methodological results)</td>
<td>Sceptical rationality</td>
<td>Synthetic-dialectical / visionary rationality</td>
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<td>(rationality of propositional contents)</td>
<td>Discursive knowledge (intersubjective, dialogical)</td>
<td>Deconstructive knowledge (hypersubjective, anti-logical)</td>
<td>Transcendental and integrative knowledge (intersubjective, triological)</td>
</tr>
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<td>Anamnestic knowledge</td>
<td>Speculative/ideological realism</td>
<td>Empirical realism</td>
<td>Anti-realism</td>
</tr>
<tr>
<td>(subjective, monological)</td>
<td></td>
<td></td>
<td>Neo-realism (e.g., critical realism, complex integral realism, visionary realism [this thesis])</td>
</tr>
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Integrative Metatheory 2.0 Modes: α, β, and γ

Integrative metatheory 2.0 has three distinct and interdependent modes: metatheory α (alpha) and metatheory β (beta)—or philosophical and scientific metatheory, respectively—as well as a third synthetic mode, or metatheory γ (gamma), representing their explicit integration. Distinguishing metatheory α from metatheory β, the former is concerned with articulating a general metatheory or philosophy of (and for) the natural and social sciences through formal transcendental investigation of their presuppositions and those of human practical activity more generally, and subjects the general conceptual frameworks actually deployed in scientific research and practical programmes to critical scrutiny. The latter engages and/or synthesizes, in systematic and coherent ways, the findings of the first-order empirical sciences (see Table 3). The former ‘underlabours’ for science (via transcendental argument and conceptual analysis) to provide it with an adequate philosophical foundation (the conditions for its possibility), while the latter ‘overlabours’ (via systematic second-order synthesis) to study, coordinate, and integrate its findings (see Figure 4), and both metatheory α and β deploy the method of immanent critique, ‘absenting absences’ (Bhaskar, 1993/2008) in other approaches and theories and in their own past phases to arrive at more adequate and complete conceptual formations as the foundation for the more adequate and complete social formations that undergird human well-being and flourishing. Metatheory α is the chief task critical realist philosophy sets itself, while metatheory β is the main focus of integral theory and complex

95 These two modes were partly inspired by Bhaskar’s distinction between metaphysics α and metaphysics β (1986/2009, pp. 19-20), although with some marked differences. Both of Bhaskar’s modes of metaphysics are forms of philosophy, and therefore are part of what I am calling metatheory α. Metatheory β, in contrast, is a form of scientific practice. This scheme differs somewhat from that of Hedlund et al. (2016), which articulates metatheory α and metatheory β in stronger correlation with Bhaskar’s metaphysics α and metaphysics β.
thought, as well as M. G. Edwards’ (2010b) approach to social scientific metatheorizing. The former’s transcendental method proceeds *a priori* but conditionally from geo-historically relative premises and issues in a general philosophical ontology, the latter proceeds *a posteriori* and issues in a general scientific ontology; and each articulates a cognate epistemology and methodology. Thus, both metatheory α and β are immanent and geo-historically relative. While the findings of metatheory α are *ex ante* in relation to the findings of science, they must in the long run be consistent with those findings; the findings of metatheory β build critically on the findings of science and are thus *ex post*. Since science itself deploys an essentially transcendental procedure, as argued above, the two kinds of metatheory beautifully complement each other. Both are intended to play an orienting and facilitating rather than prescriptive role in relation to substantive scientific inquiries; deploying a metatheory in a substantive inquiry has been usefully likened to using a word processing software with an operating system (OS) running in the background—the metatheory being the OS. Each science has an ontology, epistemology, and methodology specific to its subject matter, for which metatheory intends to underlabour in its specificity rather than provide a ready-made blueprint for all that can be mechanically applied. Having delineated metatheory α and β in general, we can now turn to the specification of their sub-types.

96 Also see Bhaskar (1979/1998, pp. 50-51).
97 Of course, the picture gets more complex when we include the distinction between metatheory and worldviews, as we saw in a similar metaphor in Chapter 1. Recall that integrative metatheory is understood as the *formalized* intellectual expression and rationalization and/or reconstruction of larger cultural worldviews. Therefore, we could just as well say that deploying a metatheory/formalized worldview in some substantive inquiry can be likened to using a word processing software with an operating system (OS) running in the background—with metatheory/formalized worldview being the OS.
Figure 4: Philosophical Underlabouring and Scientific Overlabouring
It is important to note that metatheory $\alpha$ and $\beta$ have several subtypes that can be differentiated in an overarching framework, the totality of which arguably covers the predominant extant definitions and practices of metatheory. Metatheory $\alpha$ has two sub-types, while metatheory $\beta$ has three (see Table 4). I will take these in turn, beginning with metatheory $\alpha$.

<table>
<thead>
<tr>
<th>Metatheory $\alpha$</th>
<th>Metatheory $\beta$</th>
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</thead>
<tbody>
<tr>
<td>Meta-philosophy</td>
<td>Meta-science</td>
</tr>
<tr>
<td>Philosophy of science</td>
<td>Second-order science</td>
</tr>
<tr>
<td>$A$ priori from historically relative premises</td>
<td>$A$ posteriori</td>
</tr>
<tr>
<td>Transcendental arguments plus immanent critique and conceptual clarification (underlabouring)</td>
<td>Systematic synthesis plus immanent critique (overlabouring)</td>
</tr>
<tr>
<td>Abstract and formal</td>
<td>Concrete and substantive</td>
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<tr>
<td>Philosophical ontology</td>
<td>Scientific ontology</td>
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<tr>
<td>$Ex$ ante in relation to empirically grounded theory</td>
<td>$Ex$ post in relation to empirically grounded theory</td>
</tr>
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</table>

Table 3: Metatheory $\alpha$ and $\beta$
Firstly, metatheory $\alpha$ most notably refers to metatheory for the purposes of philosophical underlabouring in terms of formal transcendental analysis of the presuppositions of science and human practical activities—$M\alpha_u$. Metatheory $\alpha_u$ is pursued to develop a philosophy of and for the natural and social sciences, thereby articulating the necessary conditions for the possibility of the (first-order) empirical sciences, as described above. Critical realism (notably, transcendental realism and critical naturalism) serves as an exemplar of $M\alpha_u$. Secondly, metatheory $\alpha$ also can refer to an explicitly normative, adjudicating mode of metatheory—$M\alpha_A$. Metatheory $\alpha_A$ assesses the conceptual adequacy and scope of other metatheories, clarifies deep structural features of the conceptual fields of particular sciences, and critiques them from a normative-philosophical standpoint (by identifying contradictions, problem fields, reductionisms, etc.). This adjudicating mode of metatheory stands in contrast to the formal

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98 The arrows indicate theorists who have offered examples or exemplary articulations of their respective sub-types of metatheorizing.

99 Such adjudication in the face of theoretical pluralism intrinsically invokes a normative or axiological dimension (as the necessary grounds for judgement of which theories are ‘better,’ ‘truer,’ how a theory ought to be, etc.) and is therefore better understood as a mode of philosophical ($M\alpha$), rather than scientific ($M\beta$) or expressly
analysis of the presuppositions of the sciences in general à la Mα. It thereby offers critical evaluation of the ontological and axiological elements of given theories or research programmes and their cognate practical applications. Thus, metatheory α interfaces with metatheory β to “regulate and oversee whole sets of discourses—serving a normative function vis-à-vis more local, discipline-specific theories and concepts” (Stein, 2016a, p. 40). This general mode of metatheory is elucidated in Stein’s (2010, 2016a, 2019a) articulations of metatheory as a decidedly normative-philosophical endeavour, exemplified in the work of metatheorists such as Pierce, Baldwin, Piaget, and Habermas. Mα likewise resonates with aspects of Vandenberghe’s (2022) notion of ‘Metatheory2’ (metatheory as a mapping device).

Turning to metatheory β and its three subtypes, metatheory β most notably refers to metatheory for the purposes of scientific overlabouring in terms of an engagement with extant scientific theory to produce an overarching super-theory that encompasses multiple (first-order) empirical theories—Mβ0. Mβ0 is exemplified on a more macro scale in Wilber’s
descriptive-explanatory, metatheory. This stands in contrast to the understanding of this mode articulated by Colomy (1991) and M. G. Edwards (2010), who conceive of it as a form of scientific metatheorizing. Of course, the coding of this mode into a philosophical or scientific category becomes less crucial to the extent that these modes are integrated in a metatheory γ, wherein the normative and the descriptive-explanatory are interwoven. However, insofar as this question (scientific or philosophical) is relevant, I argue that adjudicating metatheory is a form of philosophical metatheory (metatheory α).

100 This rather Leibnizian practice of elucidating conceptual fields also can explore their alignment with the reproductive and/or transformative dynamics within their sociological contexts (Bhaskar, 1986/2009, p. 20). Such conceptual fields must be evaluated and critiqued from a normative-philosophical standpoint, since they provide the framework within which experimental tests occur and can therefore not be empirically evaluated.

101 To be sure, Stein is highlighting the normative function of metatheory, while acknowledging multiple modes of metatheorizing, including the scientific.

102 According to Vandenberghe (2022), “as a mapping device, metatheory provides a topological analysis (analysis situs) of the underlying principles of vision and division that generate the multiplicity of theories within an existing field of research [...] a systematic analysis of the philosophical presuppositions (the ontological, epistemological and axiological premises) that structure a given field and make the reduction of the multiplicity of theories to a couple of basic positions and oppositions possible” (p. 4).

103 Mβ0 can encompass some part of a discipline’s theory, all of a discipline’s theory, or multiple disciplines.
(2000b) integral theory and on a meso scale in M. G. Edwards’ (2010) theory of organizational transformation for sustainability, and correlates with Ritzer’s (1991) M₀. Metatheory β also takes two additional forms, both articulated by Ritzer (1991) that are arguably minor sub-types: metatheory βₚ studies theory in preparation for the production of new theory on a first-order level, rather than producing an overarching new metatheory (Ritzer’s Mₚ); and metatheory βᵤ studies an existing theory for the purposes of attaining a deeper reflective understanding of it, but does not attempt to produce new theory or metatheory (Ritzer’s Mᵤ). ¹⁰⁴

Given that I have scanned across the horizon of extant theoretical definitions and practices of metatheory, I consider this taxonomic scheme of the seven sub-types of metatheory to be a kind of meta-view of metatheory along the lines of metatheory βₒ (see Figure 5).

¹⁰⁴ I argue that βₚ and βᵤ are best coded as minor subtypes in part due to the fact that while they may technically be forms of metatheorizing, they do not result in the production of a metatheory.
Integrative metatheory 2.0, as I am construing it here, is located precisely at the intersection of philosophy and science, highlighting their symbiotic and synergistic relations, as well as their methodological resonance. Hence, integrative metatheory 2.0 is theory about or beyond theory that weaves together philosophical metatheory (metatheory $\alpha$) and scientific metatheory (metatheory $\beta$) in a synthetic metatheory $\gamma$, while adhering to the integrative metatheory 2.0 principles of methodological transparency and judgemental rationalism, epistemic reflexivity and relativity, ontological realism and comprehensiveness, and integrative pluralism. It is the synergistic integration of theory about or beyond theory in the sense of philosophical underlabouring and theory about or beyond theory in the sense of scientific overlabouring that constitutes metatheory $\gamma$. Integrative metatheory 2.0 likewise cuts across knowledge domains,
disciplines, scales (from the micro to the planetary), and time spans (including past, present, and future) forging a panoptic, integrative meta-perspective on reality. It is important to note, however, that integrative metatheorists need not fashion grand, ‘theory of everything’ metatheories that comprehensively integrate philosophical and scientific metatheory across all knowledge domains, scales, and temporalities. Rather, the idea is to account for and be informed by all those elements in the purview of one’s metatheorizing, while taking on more humble research programmes and relative specializations—grounding specialization in service of integration rather than fragmentation. In this way specialization complements integration by contributing to a big-picture integrative understanding in a way that is commensurable across domains. The integration of foundational metatheory α with overarching metatheory β forges a third-way mode that transcends and synthesizes these antinomies in an integrative metatheory γ.

By uniting metatheory α and β, the major knowledge domains, and geo-historical scales and temporalities, integrative metatheory draws on philosophical and scientific metatheory to forge an integrative understanding of: the nature of the world (ontology); how we know the world (epistemology); and how we value aspects of the world (axiology). Integrative metatheory 2.0 thereby constitutes a panoptic or general worldview.¹⁰⁶ The philosophical aspect of integrative

¹⁰⁶ Vandenberghe (2022) has likewise articulated the idea of metatheory as an “overarching worldview” (Vandenberghe’s metatheory₁). However, while his scheme fuses philosophy and science, he seems to associate this form of metatheory more closely with overarching scientific metatheory: “[a]s an overarching worldview, metatheory₁ is an integral set of ‘orienting generalizations’ [following Wilber] for the systematization and organization of existing theories into a single overarching framework”(p. 4). While it is an imperfect correlation or general homology, due to Vandenberghe’s fusion of philosophy and science (and invocation of Kant, Hegel, and Comte as examples) I have roughly associated metatheory₁ with metatheory β₀, while noting that it secondarily resonates with aspects of metatheory γᵢ. I suggest, however, that for metatheory to be considered a panoptic
metatheory 2.0 (or metatheory α) develops the foundations of this understanding principally through *a priori* transcendental analysis of the presuppositions of science and the articulation of a philosophical ontology that informs a cognate epistemology and axiology in an ontological-axiological chain. This understanding, however, necessarily expounds the most abstract and general categorial features of the world—an understanding that is, in and of itself, rather devoid of substantive details. Thus, in order to generate a panoptic view of the world as a whole (including its substantive features), metatheory β is needed to develop a scientific ontology that can disclose the intricate contours and rich textures of the world across all its major domains (consciousness, culture, and nature; interiority and exteriority), including the aspects of the world that structure and inform how we know (e.g., the structures of the brain, including cognitive biases, as disclosed through neuroscience; the structures of the mind as disclosed through developmental-structural psychology; and the structures of the personality as disclosed through typological research in psychology\(^{107}\)). The findings of metatheory α must, in the long run, be consistent with the findings of science, such that scientific ontology recursively affects philosophical ontology, either explicating its details or inciting its transfiguration, as we will see in the development of visionary realism. Thus, in order to gain a panoptic understanding of the world as a whole (not just its general features, or its substantive details), both metatheory α and metatheory β are needed in tandem. As such, integrative metatheory 2.0, by definition, must include and integrate both α and β modes of metatheory in a metatheory γ. Moreover, integrative metatheory γ ongoingly reflexively deploys the method worldview, it ought to explicitly integrate metatheory α and metatheory β into an integrative open totality, or metatheory γ.

\(^{107}\) With respect to cognitive bias/heuristics, see e.g., Gilovich et al. (2002) and Hoffman (2019). With respect to personality typology see the Big Five Personality Traits (e.g., Digman, 1990) and the Enneagram (e.g., Riso & Hudson, 1996).
of immanent critique (or auto-critique) in relation to its own ontological, epistemological, and axiological foundations and formulations as they connect across \( \alpha \) and \( \beta \) modes, so as to iteratively develop more comprehensive and adequate conceptual formations as the underpinning for the more adequate and complete social formations that serve human well-being and flourishing.\(^{108}\) As I turn, in the following chapter, to the development of a concrete metatheory 2.0 \( \gamma \) under the guise of visionary realism, I demonstrate this \( \gamma \) level immanent critique wherein the results of the immanent critiques of both metatheory \( \alpha \) (critical realism) and \( \beta \) (integral theory) are integrated in a synthetic metatheory.

Having synoptically reviewed the nature and definition of metatheory, its history vis-à-vis premodern metaphysics, modern positivist metatheory, and postmodern critiques of metatheory, we have arrived at a vision for how metatheory could be revindicated in an integrative metatheory 2.0 as a crucial form of knowledge production apt for addressing the twenty-first century context of metacrisis. Along the way we have encountered some of the main players in the field and the variety of definitions, modes, or types of metatheory, and we have surveyed the somewhat sprawling theoretical pluralism that characterizes the field. I have aimed to make sense of this pluralism, articulating an overarching metaview of the field of metatheory in the vision for an integrative metatheory 2.0 that coordinates extant approaches along the architectonic lines of metatheory \( \alpha \) and \( \beta \) and their sub-types, articulated by different theorists. The result has been an overarching taxonomic framework vision for an integrative

\(^{108}\) This iterative-reflective cycle of auto-critique across \( \alpha \) and \( \beta \) modes also helps to ensure that the theory (or philosophy) of science is commensurate with the practice of science on both a first-order empirical level, as well as a second-order metatheoretical level, thereby enhancing what Hegel called the ‘s’ of a metatheory \( \gamma \). This is yet another sense in which metatheory \( \alpha \) and \( \beta \) balance, complement, and inform each other.
metatheory 2.0 that includes $\alpha$ and $\beta$ modes (and their subtypes) of metatheory, as well as a synthetic $\gamma$ mode that is the integrative-pluralistic outcome of coordinating all these distinctions. Due to this synthetic vision—or third way, tertium quid, as the Alchemists would call it—which highlights the intrinsic interdependence of $\alpha$ and $\beta$ modes (philosophy and science) in producing big-picture understandings of reality, we can see how those types (and sub-types) fit into the larger landscape of metatheory, arguably advancing the critical reflexivity and conceptual development of the field. Take, for example, the way in which this third way vision of integrative metatheory 2.0 and particularly metatheory $\gamma$—as its fullest inflection—overcomes the antinomies of philosophy and science while also recoding some types of metatheory considering the distinctions I make (e.g., my re-coding of Colomy’s adjudicating metatheory as predominantly philosophical, in contrast to that of Edwards). As such, I have attempted to offer an updated metaview and topography that arguably provides a clarifying synoptic gestalt of the contours of the field of metatheory, bringing together disparate streams of metatheory and (re-)coding them in a coherent overarching understanding.

This overarching understanding, or integrative metatheory 2.0, provides the basis for the development of visionary realism. Visionary realism, which emerged in part out of a multi-year hermeneutical dialectics vis-à-vis critical realism and integral theory (see Appendix Two), has sought to bridge the gap between philosophical and scientific modes of metatheory, while forging a higher-order synthesis in a metatheory $\gamma$. It was clear to me early on in that process that both modes were needed to obtain a panoptic understanding of the world and the metacrisis—that they were complementary forms of integrative metatheoretical knowledge.
that the world needs to work together in harmonic resonance. As a ‘dual citizen’ of both schools, I sought to let go of my exclusive identity with either camp and follow the golden thread of truth as best I could in service of addressing the metacrisis. In inhabiting the emergent ‘third space’ for some time, the notion of integrative metatheory 2.0, with visionary realism as its specific metatheory γ instantiation, was forged.\footnote{Other notable instantiations of integrative metatheory 2.0 γ in practice include the respective complex integral realisms of Sean Esbjörn-Hargens (2016) and Paul Marshall (2016a; 2016b), as well as the work of Zachary Stein (2019a, 2022), even if they do not make the same explicit theoretical differentiation and integration of α and β modes (and their subtypes) that I have articulated here.} As such, this chapter is a map of the territory in terms of the nature and history of metatheory—but it also serves as a kind of map of my own personal intellectual journey and evolution. Visionary realism, therefore, is the result of my deep synthetic work in understanding, transfiguring, and integrating the myriad manifestations of metatheory into an arguably more coherent and compelling third position.

It is my hope that the vision of an integrative metatheory 2.0 that I have articulated above can advance Kant’s (1791/1998) notion of ‘cosmopolitan-comprehensivist’ philosophy (standing in contrast to ‘scholastic-reductionist’ philosophy), wherein metatheory is concerned with the articulation of big-picture, normative visions of human self-understanding and self-transformation, highlighting its role in shaping the geo-historical trajectory of cultural evolution on the planet (Stein, 2016a, p. 40). As Stein (2016a) puts it, “metatheory has inherited from philosophy the function of providing for humanity’s languages of self-transformation—which is the task of leading humanity beyond itself by re-articulating a shared vision of human nature and the nature of the universe” (p. 39). I hope that my construal of metatheory, in its integrative 2.0 formulation, can be, as Stein (2016a) puts it, “the continuation by new means of
classic philosophical efforts, where highly reflective individuals take responsibility for
discursively constructing conceptual innovations aimed at bringing coherence to the state of
knowledge for the sake of shaping human history” (p. 37). This general cosmopolitan-
comprehensivist vision has been carried by the broad and forking stream of integrative
metatheory, including: Kant (1791/1998), Hegel (1807/2019), Schelling (1800/1978), Goethe
(1950), Solovyov (1877/2008), Sorokin (1958), Bergson (1913), Whitehead (1929/1978),
Teilhard de Chardin (1959), Gebser (1949/1985), Steiner (1886/2008), Aurobindo (1949/1990),
Emerson (1847, 1850), Baldwin (1901), Peirce (2000), Piaget (1971a), Habermas (1984),
(2017), and Stein (2019a).¹¹⁰ I argue that the integrative realist vision of integrative metathtory
2.0 that I have outlined in this chapter encompasses the broad strokes of the evolutionary
trajectory of the field, which will surely take a variety of forms. Visionary realism seeks to
engage with two of the most sophisticated and robust metatheoretical approaches—critical
realism and integral theory—to develop that vision in greater depth and substance. Bhaskar
traces a lineage to Kant by way of Hegel and Marx, while Wilber traces a lineage to Kant as well
by way of Habermas, Piaget, Baldwin, Peirce, and Emerson (Stein, 2016a, p. 40).¹¹¹ Visionary

¹¹⁰ This list is exemplary and is not intended to be exhaustive.
¹¹¹ The possibility of a plausible and generative integration of critical realism and integral theory is facilitated, in
part, by the fact that both of their lineages trace back (at least in the modern period) to Kant. Wilber takes a more
American, pragmatic line to Kant via Habermas, Piaget, Baldwin, Pierce, and Emerson that is more focused on
interiority, psychology, and individual soteriology, whereas Bhaskar follows a more European line to Kant via Hegel
and Marx that focuses more on the collective and social aspects of emancipation. The common lineage to Kant via
costarting routes confers an adequate degree of both similarity and difference for the forging of a fruitful higher-
order synthesis in a metathtory γ.
realism, as a synthesis of critical realism and integral theory, can be traced back to Kant via both lineages, while underscoring connections to Habermas and Piaget in particular. As such, visionary realism aims to update and carry forward Kant’s vision of the cosmopolitan-comprehensivist tradition which seeks to contribute to the birthing of a thriving planetary civilization—a eudaimonistic society.

In this chapter I situated metatheory in a broader landscape of knowledge production, offering a general discussion of metatheory, including its nature, definitions, and salient critiques, I then delineated the rise of integrative metatheory 2.0, in relation to contrasting historical inflections of metatheory. Together these discussions served to provide context and lay the groundwork for the development of a visionary realist metatheory apt for addressing the twenty-first century metacrisis. As such, we can now turn to directly explore critical realism and integral theory and their hermeneutical dialectics on the way to their visionary realist synthesis as metatheory γ instantiation of integrative metatheory 2.0.
CHAPTER 3—Metatheoretical Dialectics: Critical Realism and Integral Theory in Dialogue

Today the spark of a renewal of metaphysics is rising from the ashes of negativism—whether this be a version of metaphysics asserting itself in the wake of Kant or one that is blatantly scrambling back behind Kant’s transcendental dialectic.

Jürgen Habermas

After Postmodernism: The Rise of the New Realism

As postmodernism’s anti-realism continues to wane, and its inadequacies as an intellectual response to the complex global challenges of the twenty-first century become ever more glaring, there is an urgent need for more sophisticated and efficacious alternatives. But what will rise from the rubble—the fertile clearing—that postmodernism has bequeathed us?

What intimations of an alternative intellectual formation more apt for our planetary moment can be discerned? And what are (or will be) its key motifs and thematics?

To begin to address these questions one can start by noting some of the leading philosophies and metatheories in the academy that are gaining credence as alternatives to postmodernism—namely, critical realism (CR), integral theory (IT), complex thought, speculative realism, and the so-called ‘new realists’ within the analytic tradition of philosophy of science and metaphysics. These approaches are broadly united in an interest in the re-vindication of

112 Habermas, 1992, p. 28.
113 See Appendix Five for a definition and discussion of ‘postmodernism.’
115 Other philosophies could be noted here, such as metamodernism (particularly its ‘Nordic school’) (Freinacht, 2017, 2019); the participatory epistemology of the philosopher Richard Tarnas (1991, 2007) and the transpersonal psychologist Jorge N. Ferrer (2002, 2017; Ferrer & Sherman, 2008); and the work of the contemporary French philosopher Alain Badiou, who professes to be neither modern nor postmodern, but my intention here is not to be exhaustive.
ontology\textsuperscript{117} or some variant of \textit{realism} in the face of the neo- and post-Kantian epistemological critiques undergirding postmodernism’s myriad inflections of anti-realism.\textsuperscript{118} Concomitantly, they diverge in important ways in terms of their particular approaches and histories related to surmounting these challenges to the status of ontology and their impact. In contrast to critical realism, for whom the re-vindication of ontology in philosophy (or metatheory \(\alpha\)) has been a central and consistent goal explicitly developed since the 1970s, integral theory has approached the issue from a more scientific, interdisciplinary\textsuperscript{119} perspective (metatheory \(\theta\)), has been less consistent in its position (e.g., its ‘postmetaphysical’ moments of opposition to ontology in phase 5, discussed below), and has only recently begun to address the issue, which remains somewhat peripheral, more explicitly (see e.g., Esbjörn-Hargens, 2010a; P. Marshall, 2012a; Schwartz, 2016; Wilber, 2012a, 2012b).\textsuperscript{120} The complex thought of the French philosopher Edgar Morin (2008a, 2008b; Morin & Kern, 1999) is also worthy of consideration, but unfortunately a large majority of his writings have not yet been translated into English. Finally, while the much more heterogeneous and loosely connected philosophical movements known

\textsuperscript{117} While much more could be said with respect to the similarities shared by these three approaches, my interest here is focused on the domains of ontology and epistemology.

\textsuperscript{118} Beyond the neo- and post-Kantian critiques of realism, which were radicalized by the postmodernists, (according to Bhaskar (2002/2012b), “the post-modernists are non-dialectical post-Kantians,” p. 30), it is important to note, following numerous theorists, including Roy Bhaskar and Quentin Meillassoux (see e.g., 2008), that most of Western philosophy, running all the way back to the ancient Greeks (e.g., Parmenides, Plato, and Protagoras) has somewhat of an ‘irrealist’ or ‘correlationist’ tendency, which privileges epistemology over ontology in some form.

\textsuperscript{119} Technically, integral theory situates itself as ‘postdisciplinary’ or ‘metadisciplinary,’ which it contrasts with transdisciplinary, cross-disciplinary, multi-disciplinary, and interdisciplinary (see e.g., Esbjörn-Hargens & Zimmerman, 2009). However, here I am using interdisciplinary as a general ‘catch all’ phrase to signify scholarship that pursues some form of integration across disciplinary boundaries.

\textsuperscript{120} However, issues of ontology are becoming increasingly discussed amongst the integral theory community. For example, a major theme of the 2013 Integral Theory Conference (ITC) in San Francisco was the exploration of the relationship between integral theory and critical realism, inevitably raising key questions of ontology. Roy Bhaskar delivered a keynote address, and numerous paper presentations at the conference were devoted to exploring points of contact between these two metatheories.
as speculative realism within the continental tradition\(^{121}\) (see, e.g., Graham Harman’s (2002, 2018) object oriented ontology, which he also refers to as ‘a new theory of everything,’ and Levi Bryant’s onticology (2011)), and the so-called ‘new realists’ within the analytic tradition of philosophy of science and metaphysics,\(^{122}\) would likewise be worth engaging in a more comprehensive study, due to limitations of length, I restrict myself to addressing only IT and CR.

Staying close to the aim of this thesis, I will focus on only two of the aforementioned approaches here: the respective positions articulated by the contemporary European-based philosophy of critical realism, founded by Roy Bhaskar, and the American-based metatheoretical approach of integral theory, founded by Ken Wilber. Thus, in this chapter, I want to suggest that both of these movements have substantial relevance for the iterative and

\(^{121}\) Speculative realism is itself a relatively new movement, emerging in 2007, which employs a number of divergent approaches to the re-vindication of ontology, and has, to some extent, been influenced by critical realism (see e.g., Bryant, 2011). It is a broad and heterogeneous family of emerging philosophical positions that are generally understood to be responses to the French philosopher Quentin Meillassoux’s (2008) “correlationism” thesis. As Bryant (2011) states, speculative realism is “a loosely affiliated philosophical movement that arose out of a University of London, Goldsmith’s College conference organized by Alberto Toscano in 2007. While the participants at this event—Ray Brassier, Iain Hamilton Grant, Graham Harman, and Quentin Meillassoux—share vastly different philosophical positions, they are all united in defending a variant of realism and in rejecting anti-realism or what they call ‘correlationism’” (Bryant, 2011, p. 26). In this way, many speculative realists argue for various inflections of realist ontology that avoid the treatment of objects as mere constructions or correlates of the human subject/mind or culture/language, and in that sense seem to diverge from postmodernism (Bryant, 2011, p. 26). Finally, it is worth noting that Robert Jackson (2013) has provisionally outlined four main schools or strains within speculative realism, mapped along two axes: 1) “the primacy of epistemological fact/knowledge” versus “the primacy of ontological existant”; and 2) “intensional” versus “extensional.” His blog-article thus provides a clarifying overview of the relationships among the various positions within the speculative realism movement. Speculative realism appears to be mostly concerned with a realism about ‘things,’ as opposed to causal forces, things, and experiences (as in critical realism) (Bhaskar, 2016a, p. 39). It could be said, from a critical realist vantage, that it sees the key distinction between the transitive (epistemology) and the intransitive (ontology) and argues, against correlationism, for their irreducibility. However, the sense of a stratified depth ontology appears to be a lacuna in speculative realism (Bhaskar, 2016a). See Assiter (2013) and Gironi (2012) for a deeper discussion of the relationship between critical realism and speculative realism.

\(^{122}\) The key insight of these analytic ‘new realists’ can be situated in terms of a dispositional realism that distinguishes between causal powers (critical realism’s level of ‘the real’) and their actualized patterns of events (critical realism’s level of ‘the actual’), but is mostly of a two-strata form, as opposed to critical realism’s three-strata depth ontology, which includes critical realism’s level of ‘the empirical’ (Bhaskar, 2016a, pp. 38-39, 202).
reflexive process of envisaging and forging an integrative (post-postmodern or metamodern) metatheory that is apt for the twenty-first century and its complex global metacrisis. As discussed in Chapter 2, rather than a singular approach or particular theory (e.g., Ken Wilber’s articulation of the AQAL model), I argue that integrative metatheory 2.0 might be better understood as a broad and pluralistic sphere of thought (i.e., inclusive of multiple schools or streams) defined largely as an emergent structural formation arising in the wake of the philosophical discourse of both modernity and postmodernity and characterized by the key motif of a resurgence of ‘ontology,’ or ‘the new realism,’ regardless of the degree to which specific schools convincingly break with irrealism and anti-realism. In this way, I am suggesting that we may indeed be in the early phases of integrative metatheory’s rise as a definitive alternative to the philosophical discourse of post/modernity and its marked limitations—but of course, only time will tell. Yet if integrative metatheory 2.0 is to constitute an authentically novel movement within the geo-historical trajectory of Western thought, rather than a mere recapitulation or variant of postmodernism (or regressive championing of [pre]modern approaches under the guise of the new), then it must be more than an

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123 In terms of geo-historical periodization, the German-Swiss philosopher Jean Gebser (1949/1985) called this emerging epoch and structure of consciousness the “integral” (also see Feuerstein & Gebser, 1987; J. Johnson, 2019).

124 See Appendix Five for a discussion of ‘development’ and the nuances and caveats associated with the dialectical, developmental-evolutionary view that I expound in this thesis. For now, suffice it to say that the notion of development or evolution that I espouse is a far cry from the unilinear, triumphalist, Eurocentric, neo-colonial, and totalizing approaches to development characteristic of modernism.

125 In this way, integrative metatheory 2.0, as discussed in Chapter 2, should be concerned with some form of ontological realism and going beyond anti- or irrealist philosophy, but may nevertheless fail to fully actualize this in a compelling and coherent manner.

126 This is not to say that interest in premodern or modern approaches is inherently regressive. Premodern and modern philosophy are clearly rich repositories of knowledge and wisdom—aspects of which can and likely need to be drawn on in forging viable contemporary integrative approaches. For example, Habermas’ interest in contributing to the ‘unfinished project of Enlightenment’ seeks to redress some of the core problems in modern philosophy while likewise revalidating the role of faith and religion in post-secular societies, as will be discussed in
alternative—it must go beyond or transcend modernism and postmodernism while simultaneously including and synthesizing their most important enduring contributions. That is, integrative metatheatry 2.0, I want to suggest, should forge a higher-order sublation (Aufhebung) or transcendence and non-preservative synthesis of the philosophical discourse of both modernity and postmodernity. However, as we will see, this sublation necessarily is of a transformative-negational variety. Thus, rather than a mere recapitulation or re-iteration of the core tenets of modern or postmodern metatheory, I argue that a definitive signature of integrative metatheory 2.0 is its fundamental break or asymmetry and transformative negation in relation to the ontological and epistemic foundations of its antecedent philosophical formations concomitant with the enfolding of their enduring moments of virtue. It thereby must be an emergent, non-preservative dialectical sublation—meaning that it negates, modifies, and re-patterns aspects of their architectonics—on the way to birthing an emergent holistic intellectual meta-structure or formation. In short, integrative metatheory 2.0, specified as such, should strive to enact a kind of post-postmodernism or metamodernism (Freinacht, 2017, 2019; Stein, 2018b, 2019a; Storm, 2021) worthy of such a designation in a definitive structural sense, as opposed to the all-too-common rhetorical ‘post-’holing that often seems to reflect trivial academic fence-building more than a substantive differentiation or break from antecedent approaches.

Appendix Two. Likewise, some speculative realists (e.g., Graham Harman) have highlighted the value of returning to Aristotle for inspiration in developing new ontologies. Both of these projects seem more integrative than regressive, in my view. Furthermore, as I hope to clarify below, I do not see Western philosophy (or any other development, for that matter) to have a pre-given trajectory. In my view development or evolution (a descriptive evaluation of increasing complexity) is de-coupled from notions of progress (a largely normative judgement). Development is thus seen as a complex dialectical process that is radically contingent, multi-dimensional, and non-unilinear—not a triumphalist, simple ‘growth to goodness.’
Based on the criteria or guiding principles for integrative metatheory 2.0 (i.e., methodological transparency and judgemental rationalism, epistemic reflexivity and relativity, ontological realism and comprehensiveness, integrative pluralism) that articulate the contours of a metamodern intellectual formation sublative of the philosophical discourse of modernity and postmodernity and a mature or post-critical championing of ontology, I argue that CR and IT appear to be among the most comprehensive and sophisticated expressions of a still yet to be fully consolidated integrative, metamodern metatheory—they are different species of a wider metamodern cultural and historical genus. Both CR and IT explicitly situate themselves not only as alternatives to postmodernism, but claim to go beyond both positivism and social constructivism while integrating key aspects of their respective philosophical discourses. In the face of radicalized forms of post-Kantian scepticism and anti-realism characteristic of postmodernism, both approaches champion a higher-octave return to ontology and metanarrative—a return to some form of realist metatheory that substantially integrates the epistemic advances of both (post)positivism and social constructivism and thus is not a regression to a form of pre-critical, first philosophy (prima philosophia) or dogmatic metaphysics. Both CR and IT are vehemently critical of the extremes of postmodern anti-realism while nonetheless articulating unique justifications for a return to an ‘ontology’ inclusive of the post-Kantian, postmodern principle of epistemic relativity in some form, to some degree (although, as we will see, while the same signifiers (e.g., ‘ontology’) are used, there may be little referential overlap across these metatheoretical streams in their present

128 It is also worth noting that both CR and IT not only claim this about themselves, but various secondary commentators have also recognized them as such. This obviously doesn’t mean they have necessarily achieved it, or are on equal ground. Note also that positivism and social constructivism are invoked here as key (ontological and epistemological) moments within a constellation of modern and postmodern philosophies, respectively. They thereby are not to be conflated with the larger totalities of modernism and postmodernism.
form). They both seem to acknowledge that knowledge can no longer be formulated from what Thomas Nagel (1986) calls the ‘view from nowhere,’ which characterizes most metaphysical projects. Rather, they both self-reflexively argue that it should necessarily be situated in relation to various positionalities, such as geo-historical trajectories, cultural milieus, psychological structures, methodologies, etc. Both approaches argue that there are criteria for ranking or judging the relative validity or truth of a perspective based on rational criteria (IT does this based on scientific developmental models, while CR deploys transcendental arguments and retroductive science to establish a basis for judgement). CR and IT are both grounded in emancipatory knowledge-constitutive interests or normative structures, both schools have evolutionary logics, and could be said to have visionary elements. As such, they are both attempting to fashion the emergent contours of an integrative metatheoretical discourse through an epistemologically sophisticated ‘return’ to ontology or (neo-)realism that aims to address the pervasive alienation of the metacrisis while creating a more healthy, flourishing, and self-realized society. While keeping these significant resonances in mind, it must be observed that CR and IT have very different, partly incommensurable yet potentially complementary, ontological and epistemological positions.

Both CR and IT, in many respects, see Kant as the pivotal philosopher to be contended with in establishing the architectonic foundations of their respective metatheories. As I will argue, IT, as it has been expressed to date, maintains a post-Kantian position, developing an intricate, post-metaphysical theory of enactment, the primary strengths of which lie in the epistemic
domain. In contrast, CR expounds a powerful critique of neo- and post-Kantianism, yet uses a Kantian-inspired method of transcendental argumentation to derive a systemically self-reflexive and coherent ‘depth ontology,’ which is arguably its signature advance and principal strength. Thus, in this chapter I aim to explore the most salient strengths (moments of truth and coherence) and weaknesses (absences and contradictions) of both CR and IT\textsuperscript{130} within the domains of ontology and epistemology, highlighting their striking complementarities, on the way to forging, in Chapter 4, the contours of a non-preservative synthesis of these two approaches to being and knowing—an emergent visionary realism. Coherent with the aims set out in Chapter 1, the principal knowledge-constitutive interest motivating such a synthesis is the rethinking and advancement of the intellectual resources with which we can adequately understand and effectively address the complex, twenty-first century challenges constituted by the metacrisis with sufficient integrative span, emancipatory potency, and visionary activation of real potentials. As such, I am broadly attempting to begin to do with CR and IT what they each claim to do with the philosophical discourse of modernity and postmodernity—namely, to transcend and synthetically integrate key aspects of them into an emergent intellectual formation.

I will now turn to providing a synoptic overview of IT in the domains of ontology and epistemology, followed by a comparable exposition of CR.

\textsuperscript{129} Here I am generally using ‘epistemic’ in the sense of relating to informal knowledge or cognition, in contrast to ‘epistemology’ which refers to formal theories of knowledge and how it is produced or acquired. However, these terms often overlap and can be used interchangeably in some contexts.

\textsuperscript{130} Also see Marshall (2012b) for an excellent overview of the points of connection and complementarity between critical realism and integral theory as integrative metatheories.
Integral Theory’s Ontology and Epistemology

Since a comprehensive overview of IT’s ontology and epistemology is beyond the scope of this chapter, I will, rather, summarize certain key architectonic features relevant to my argument. To begin, IT, at least in a formal philosophical sense, lacks an explicit, fully articulated and justified (a priori) philosophical ontology; it thus remains largely implicit and therefore will be assessed in a reconstructive manner. Having clarified this caveat, IT, as it has been expressed to date, builds on the German philosopher and social theorist Jürgen Habermas’ (1996, 2003) post-metaphysical thinking in articulating a post-Kantian theory of enactment, or integral post-metaphysics (also called phase 5 in the development of Wilber’s approach). Integral post-metaphysics, as expounded by Wilber\(^{132}\) (2001, 2003, 2006) and Esbjörn-Hargens\(^{133}\) (2010a) links ontology to epistemology and methodology such that (at least in some sense) it appears to assert the primacy of epistemology and methodology over ontology.\(^{134}\) That is, I argue that in practice it underscores the ways in which ontology is essentially derivative of, or causally

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\(^{132}\) However, it is important to note that integral post-metaphysics, which stereotypically “overcomes and rejects a metaphysical viewpoint and replaces it with an empirical, phenomenological, experiential, and evidential approach” (Wilber, 2001, p. 2) does not appear to be able to justify itself in accord with its own criteria. As Wilber (2006) admits, integral post-metaphysics cannot actually transcend metaphysics in practice, but rather relies on a “minimalist metaphysics,” as mentioned above. Specifically, in order to cohere his philosophy, Wilber posits a number of “involutionary givens” such as Eros, Agape, and a morphogenetic field of potentials. These involutionary givens are apparently grounded only in substantive speculation and presupposed as ontological givens.

\(^{133}\) While Esbjörn-Hargens (2010a) refers to his extension of Wilber’s (2001, 2003, 2006) approach as “integral enactment theory,” I will, for purposes of this paper, include it under the umbrella of “integral post-metaphysics” or simply “post-metaphysics,” since its fundamental innovation is to thematize ontology and make explicit integral theory’s previously implicit ontological pluralism so as to complement its epistemological and methodological pluralism in an “integral pluralism” framework. For Esbjörn-Hargens, postmetaphysics is a kind of post-Kantian enactivism that “avoids positing realities independent of the viewer” and locates a pluralism of ‘ontologies’ in terms of “perspectives from somewhere by someone” (Esbjörn-Hargens & Zimmerman, 2009, p. 484).

\(^{134}\) This is explicitly true for Wilber, while appearing in a more implicit and subtle way in Esbjörn-Hargens (2010a), who attempts to link epistemology and ontology via methodology. While Esbjörn-Hargens’ integral enactment theory clearly is a more balanced and advanced theoretical articulation relative to that of Wilber (2003, 2006), my fundamental critique of integral enactment theory, along with the enactive approaches of Varela et al. (1993), Mol (2002), and Law (2004), still applies.
contingent on, epistemology (and methodology), despite countervailing claims that they are synchronically emergent (“arise concurrently”) and mutually interdependent (“co-enact concurrently”). Moreover, maintaining the primacy of epistemology (and methodology) over ontology is closely connected to IT’s post-metaphysical attempt to jettison ontology or metaphysics in its pre-critical or dogmatic form. As Wilber (2006) articulates it,

If metaphysics began with Aristotle, it ended with Kant. Or at any rate, took a turn that has defined the way sophisticated philosophers think about reality ever since. Kant’s critical philosophy replaced ontological objects with structures of the subject. In essence, this means that we do not perceive empirical objects in a completely realistic, pregiven fashion; but rather, structures of the knowing subject impart various characteristics to the known object that then appear to belong to the object—but really don’t; they are, rather, co-creations of the knowing subject. Various a priori categories of the knowing subject help to fashion or construct reality as we know it. Reality is not a perception, but a conception; at least in part. Ontology per se just does not exist (p. 231).

Thus, Wilber’s articulation of his post-metaphysical position appears to involve a relatively strong post-Kantian irrealist and constructivist stance, including an alignment with Kant’s notion that the a priori categories and structures do not have independent, detached, real

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135 In my view this assessment holds, despite some obfuscating statements arguing for the synchronically emergent and mutually interdependent nature of ontology and epistemology—e.g., Wilber’s (2012a) claim that “epistemology (and methodology) and ontology are all integrally interwoven and mutually enactive, each contributing an irreducible aspect of the whole of reality, and none can be privileged (without resorting to first tier thinking) [...] This approach neither commits the epistemic fallacy (epistemology is privileged and ontology derived from it) nor the ontic fallacy (ontology is privileged and epistemology derived from it). Nor does it see ontology separated and consigned to its own realm, and epistemology separated and consigned to its own realm—but rather both arise concurrently (as part of a four-quadrant tetra-arising), co-evolve concurrently, and co-enact concurrently” (p. 1). As will be expounded, these claims seem to cloud the otherwise clear logic of integral post-metaphysics, which precisely depends on the transposing of ontology into epistemology such that the former is derived from the latter. Merely claiming (and not providing an argument) that they both co-arise and co-enact each other concurrently does nothing, in my view, to resolve the contradictions between such claims and other statements such as the following: “[ontological] objects come into being, or are enacted, only at various developmental levels of complexity and consciousness” (Wilber, 2006, p. 252), or “critical (Kantian) philosophy replaced metaphysics (or ontological objects) with epistemology (or structures in the subject), and this general move is unavoidable in the post/modern world” (Wilber, 2006, p. 271).

136 I argue that Wilber’s position is indeed a strong or radical (but not extreme) constructivism, despite his inclusion of various qualifiers and apparent caveats such as “we do not perceive empirical objects in a completely realistic, pregiven fashion” and “reality is not a perception, but a conception; at least in part” (emphasis added). This should clarify as my argument unfolds and I address Wilber’s ‘ex-ist’/‘subsist’ distinction in more depth.
referents in the world (that is, *categorial irrealism*), but, in Wilber’s terms, ‘enact’ the referent. Wilber (2006) goes on to note that:

> [ontological] objects come into being, or are enacted, only at various developmental levels of complexity and consciousness. Whether they exist in some other way CANNOT BE KNOWN in any event, and assuming that they do exist entirely independently of a knowing mind is nothing but the myth of the given and the representational paradigm—that is, is just another type of metaphysical thinking and thus not adequately grounded. At any event, post-metaphysical thinking does not rely on the existence of a pregiven world and the myth of that givenness (p. 252, capital letters in original).

This passage seems to reveal Wilber’s correlation of ontology and epistemology: the ontological, mind-independent existence of objects “CANNOT BE KNOWN,” and therefore, in a (characteristically postmodern) radicalization of Kant, if they can’t be known, then sophisticated philosophy or metatheory, for Wilber, would make no claim to their existence: the ontological status of an object is contingent on its epistemic enactment vis-à-vis developmental structures and methods. Accordingly, Wilber, like Kant, seems to suggest that we cannot have knowledge of being as such (the ontic or *Ding an sich*) but only being as it is known by subjects (human and non-human). He then goes a step further in implying that we can collapse Kant’s transcendental dialectic and functionally equate being with access to being, being itself with the (inter)subjective interpretation or enactment of being: “there is no ‘apart from’ how a thing appears; there is simply how it appears” (Wilber, 2006, p. 252); thus “‘enter consciousness’ and ‘exist’ are essentially identical in the post/modern world” (Wilber, 2006, p. 250). Thus, in the face of this Kantian problem of access, Wilber argues for what seems to be a subject-oriented position, albeit a(n) (arguably non-anthropocentric) panpsychic one (see

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137 As Kant stated, “hitherto it has been assumed that all our knowledge must conform to objects,” but he then offers a new proposition: “that objects […] conform to our knowledge” (quoted in Braver, 2007, p. 35).
below), that apparently sees no way for there to be realities that are fundamentally mind independent—he sees no way to grant ontology an autonomy from epistemology (and methodology) without regressing to dogmatic metaphysics, or some kind of pre-critical ontotheology that sidesteps the demands of modern procedural rationality, as I delineated in Chapter 2 (Habermas, 1992). Procedural rationality, for Habermas, is closely connected, as a key criterion, to ‘post-metaphysical thinking.’ Thus, from the perspective of integral post-metaphysics, which is centrally committed in theory to a procedural rationality, any claim to a truly mind-independent object-world is apparently a form of the ‘myth of the given,’ or pre-critical metaphysics.

Wilber (2012a), nonetheless, maintains that “the Integral map is drenched in ontology” (p. 1), due to, for example, its metatheory of “the 20 tenets” (scientific meta-patterns of evolution in the physiosphere) and its metaphysical “involutionary givens” (Wilber, 2012a, p. 1). In some sense, I agree with Wilber’s assessment here: integral theory is in fact inundated with ‘ontology,’ if defined broadly.

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138 For CR, however, ontology is relatively autonomous from epistemology, but not separate or discrete.
139 For Wilber (2006), “there is no pregiven world, existing independently and apart from all perception of it. Nor are all things merely perceptions. Rather, there is a sum total of the mutually disclosing things and events that disclose themselves relative to each other (i.e., relative to each other’s perspective)” (p. 255). Moreover, he states, “assuming there is something pre-existing in an ahistorical world and waiting to be seen is just metaphysics (and the myth of the given). [...] there is no ‘apart from’ how a thing appears; there is simply how it appears, and it ALWAYS ALREADY appears as a perspective” (p. 252).
140 Wilber (2012a), in response to recent publications on the relationship between CR and IT, states that “virtually all of them say the same thing,” in pointing out that integral theory can benefit from critical realism through “essentially, ‘a grounding in ontology’” (p. 1). He goes on to state that “in some ways this is unfair to Integral Theory. As several responding critics have pointed out, Integral Theory has an extensive ontology—from ‘involutionary givens’ to the 20 tenets, whose first tenet is: ‘Reality is composed neither of things nor of processes, but of holons.’ Holons, of course, are wholes that are parts of other wholes (as a whole atom is part of a whole molecule, a whole molecule is part of a whole cell, a whole cell is part of a whole organism, etc.). This is sometimes worded, ‘Reality is composed of perspectives that are holons’ [...] Since all of the items in the quadrants are holons, the Integral map is drenched in ontology” (p. 1).
However, the failure to differentiate philosophical from scientific ontologies (or metatheory $\alpha$ and $\beta$, respectively) has led to significant confusion about the status of integral theory’s ontology. Such a distinction is therefore crucial for understanding the respective status and relation between the two metatheories on the level of ontology, as well as going beyond the primary misunderstanding that, in my view, characterised the first wave of engagement between critical realism and integral theory, including that of Bhaskar and Wilber themselves (Bhaskar, 2012; Wilber, 2012a, 2012b). To be sure, integral theory does indeed have a philosophical ontology (metatheory $\alpha$), as philosophical ontology has been well established as inexorable via transcendental argument, as will be further clarified when we turn to critical realism below. I will argue, however, that IT’s philosophical ontology is largely implicit or unconscious. And where it is explicit, it is incommensurable with the dictates of its own postmetaphysical commitments (namely, the demand that truth claims accord with the principle of procedural rationality), as will be argued below. That said, IT does indeed offer an impressive and sweeping scientific ontology, including one that articulates the tendencies and emergent properties of the part/whole entities (or holons) across the physiosphere, biosphere, noosphere, and (via its deep empiricism) theosphere (Wilber, 1995). Thus, ITs principal strength in the realm of ontology is its scientific ontology (metatheory $\beta$), which integrates insight across the natural sciences, the social sciences, and the human sciences, in a grand synthesis or ‘theory of everything’ (Wilber, 2000b). In contrast, ITs philosophical ontology, which for Wilber (2012a) is inseparable from its epistemology (and methodology), is notably weak—being largely
unjustified, either on account of it being implicit, or, where it is explicit (e.g., its ‘involutionary
givens’), self-contradictory.

With respect to integral theory’s philosophical ontology, it is relevant to note that Wilber concedes that integral theory’s post-metaphysical position actually relies on a “minimalist
t metaphysics,” which includes his aforementioned “involutionary givens,” including Eros, Agape, and a morphogenetic field of potentials.¹⁴¹ This so-called minimalist metaphysics indeed seems to be the closest proxy to an explicit philosophical ontology in integral theory’s post-
metaphysical inflection. However, as will be clarified in my argument below, if this minimalist
metaphysics is to cohere with ITs own post-metaphysical position, it is in need of elaboration
and justification vis-à-vis the methodological status of these claims. Crucially, Wilber writes,
“the a priori forms that are postulated had better be defensible with at least some reference to
modern and postmodern forms of justification (and validity claims)” (p. 234, my emphasis). But for Wilber (2006), while truth claims must be justified in terms of epistemic and
injunctive/methodological reflexivity (viz., procedural rationality) as much as possible, he
likewise believes that it is not always possible: philosophies cannot “do completely without any
[unjustified] a priori forms (no philosophy can); but the fewer, the better” (p. 234). Thus, for
Wilber, Occam’s razor must be applied with regard to unjustified metaphysical postulates to
minimize them. But, as we shall see upon turning to CR below, a priori truth claims can indeed
be justified in accord with the demands of procedural rationality—that is, post-
postmetaphysically. This presents a problem field for IT that is largely papered over. To resolve

it, IT logically would either need to: 1) demonstrate unequivocally that such a minimalist metaphysics was more than a mere speculative and dogmatic assertion of anamnestic knowledge, in the manner of first philosophy, and somehow meets the key criterion of methodological/epistemic reflexivity touted by its own post-metaphysical approach (which it has already conceded not to be so); or 2) make a cogent and convincing argument for the inexorability of postulating pre-critical, metaphysical forms (which, as we shall see, CR has demonstrably refuted). Indeed, until then, such ‘minimalist’ metaphysical claims are in clear contradiction with IT’s postmetaphysical commitments. In many of Wilber’s writings, despite claims that IT is post- or minimally metaphysical, it often appears to be the case that his metaphysics is substantive and speculative and incoherent with his own presuppositions. That is, Wilber attempts to resolve the contradiction (between his postmetaphysical and pre-critical metaphysical commitments) by dropping the metaphysical elements of his earlier work based on the perennial philosophy and adopting a ‘deep empiricism’ in which various elements of his neo-Hegelian metaphysics of spirit-in-action might be postmetaphysically justified. This does little, in my view, to redress the problem of the necessity of an a priori philosophical ontology (or metatheory α). Nonetheless, it is a promising direction, in my view, for the further development of Wilber’s a posteriori scientific ontology (or metatheory β). However, it is underdeveloped in his overall system, and his position, as he acknowledges in the aforementioned quotation, remains metaphysical in ways that are problematic relative to the internal coherence and reflexivity of his metatheory. Wilber largely claims that his metatheoretical narrative isn’t metaphysical, while occasionally—and inconsistently—admitting that it is minimally so. It appears, however, to be metaphysical in the pre-critical sense of
methodologically opaque and unjustified, and in contradiction with the core tenets of his postmetaphysical stance.

Turning to the question of scientific ontology, integral theory indeed possesses an impressive and far-reaching transdisciplinary ontology of tremendous breadth and depth that systematically and critically assesses—and synthesizes—the findings of the special (disciplinary) sciences, from physics and chemistry to biology and ecology to psychology and sociology (and even claims to integrate a form of spiritual science in the form of a broad/deep empiricism of mystical states). Returning to the proposition that Wilber’s (1995) so-called ‘20 tenets’ are constitutive of his ontology, I argue that they indeed constitute an important aspect of integral theory’s scientific ontology, although they are far from exhaustive of it. The 20 tenets are the result of Wilber’s impressive coding of the meta-patterns or tendencies governing evolution in the purely physical domain of the universe or “physiosphere.” They are derived from a deep study of the sciences of complexity (non-linear systems dynamics), which have their basis largely in the physical sciences. Thus, the 20 tenets should be largely regarded as a crucial part of integral theory’s scientific ontology of the physiosphere.¹⁴² The situation gets more convoluted when Wilber moves from his (Wilber-4) statement that reality is composed neither of things nor processes, but of ‘holons’ (Wilber, 1995) to his (Wilber-5) stronger constructivist statement that reality is composed of ‘perspectives’ (Wilber, 2006). In doing so, it seems that

¹⁴² The first of the twenty tenets is: “Reality is not composed of things or processes, but of holons” (Wilber, 1995, p. 43). Wilber (2012b) further qualifies this proposition and its relation to ontology by stating that “holons, of course, are wholes that are parts of other wholes (as a whole atom is part of a whole molecule, a whole molecule is part of a whole cell, a whole cell is part of a whole organism, etc.). This is sometimes worded, ‘Reality is composed of perspectives that are holons’ (for reasons explained below). Since all of the items in the quadrants are holons, the Integral map is drenched in ontology” (p. 1).
Wilber has extrapolated from (the first tenet in) his scientific ontology a quasi-philosophical ontological proposition in which he attempts to ground his post-metaphysical position. However, the procedure or method by which he arrived at this claim has not been made transparent, and therefore appears to be, by default, an essentially speculative ‘metaphysical’ claim. Interestingly, Wilber (2012b) augments his position by claiming in note 1 that “‘Reality is composed of holons’ is often stated ‘Reality is composed of perspectives that are holons,’” (p. 2) thus explicitly linking a key ontological proposition in Wilber-4 with that of Wilber-5 for the first time in a published work. In my view, this appears to be an important (retrofit) move towards redressing problematic aspects of his (phase 5) post-metaphysical stance and grounding it clearly in his earlier (phase 4) work.

However, Wilber’s (2012a, 2012b) recent writings on CR, I argue, tend to circumnavigate the key issues, continuing to avoid a substantive engagement with Bhaskar’s transcendental arguments for the disambiguation or differentiation of ontology and epistemology. Such differentiation is clearly not the same as them being violently torn from each other, as Wilber would have it. Rather, differentiation, according to Wilber’s own developmental logic, is the necessary condition for the possibility of authentic integration, in contradistinction to pre- or de-differentiated fusion (Wilber, 2000a). For Bhaskar (1993/2008), ontology and epistemology are related in terms of an open totality wherein ontology constellationally overreaches or contains epistemology in a unity-in-diversity, rather than a closed totality or monovalent
unity. Bhaskar’s argument implies that integral theory is necessarily beholden to ontological realism in the manner of TINA formation—There Is No Alternative to realism. That is, IT is dependent on an implicit ontology that precedes, and therefore can be disambiguated or decoupled from, epistemology/methodology, and cannot intelligibly claim otherwise (i.e., at least not without simultaneously succumbing to a fundamental performative self-contradiction or self-referential paradox). This point will be returned to below. Furthermore, Wilber’s position here depends in large part on his “genuine panpsychism” which, methodologically speaking, is in need of a justification to show its alignment and coherence with his phase 5 post-metaphysical emphasis on methodological reflexivity and transparency and to demonstrate that it is not “just another type of metaphysical thinking and thus not adequately grounded” (Wilber, 2006, p. 252). Based on published articulations to date, Wilber’s panpsychic position appears to be largely unjustified from a methodological perspective. I intuitively resonate with panpsychism/paninteriorism, but I do not think it can be coherently proclaimed (in an apparently metaphysical manner) as a crucial component of his “postmetaphysical” philosophy without a more elaborated justification.

In further qualifying his position as non-anthropocentric or panpsychist, Wilber (2012b) refers to his neo-Whiteheadian position as “pan-interiorist,” wherein the Kosmos is composed of sentient holons with perspectives from humans all the way down to sub-atomic particles (who have “prehension”). For Wilber (2012b), his paninteriorism constitutes a key point of demarcation between his position and that of Bhaskar:

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143 According to Bhaskar (1993/2008), “differentiation is a necessary condition of totality and diversity of unity” (p. 279).
CR maintains that there are ontological realities that are not dependent upon humans or human theories—including much of the level of the ‘real’—including items such as atoms, molecules, cells, etc.—and IT agrees, with one important difference: IT is panpsychic (a term I’m not fond of, preferring ‘pan-interiorist,’ meaning all beings have interiors or proto-consciousness, a la Whitehead, Peirce, Leibnitz, etc.)—to wit, atoms do not depend upon being known by humans, but they do depend upon being known by each other. The ‘prehension’ aspect of atoms (proto-knowing, proto-feeling, proto-consciousness) helps to co-enact the being or ontology aspect of the atoms for each other—their own epistemology and ontology are thus inseparable and co-creative. The atom’s prehension is part of its very ontology (and vice versa), and as each atom prehends its predecessor, it is instrumental in bringing it forth or enacting it, just as its own being will depend in part on being prehended/known/included by its own successor (p. 43).

While the panpsychic qualification of Wilber’s postmetaphysical/enactivist position does seem to distinguish it from the standard anthropocentric expressions of actualism and the epistemic fallacy, I argue that it does little to refute the core critiques that CR levels against it. Wilber’s panpsychic enactivism still necessarily must presuppose a mind- or prehension-independent world—an implicit ontology anterior to enactment. This is what CR refers to, as mentioned above, as a TINA formation. So, while Habermas (1992, p. 29) argues that “there is no alternative to post-metaphysical thinking,” we can be fairly certain that there is indeed a viable, post-critical or post-postmetaphysical alternative to post-metaphysical thinking in critical realism, particularly its transcendental realism (to which there appears to be no alternative). (Alternatively, transcendental realism could be considered to be highly post-metaphysical (or post-postmetaphysical) in certain respects, as will be explained.) I will discuss this critique of enactivism/post-metaphysics in the following chapter.

To be sure, Wilber’s (2006, 2012a, 2012b) notion of ‘intrinsic features,’ and related distinction between ‘subsist’ and ‘ex-ist,’ adds complexity and nuance to his scheme, and prima facie appears to undercut the assessment that any claim to a truly mind-independent object-world is
apparently a form of the ‘myth of the given.’ Accordingly, there appears to be an analogue, as some scholars (see e.g., Murray, 2019) have suggested, between the notions of ‘sub-sist’ and ‘ex-ist’ and ontology and epistemology, respectively, wherein ontology possesses ‘intrinsic features’ and subsists prior to and independent of epistemology. Yet upon closer examination, it becomes obvious that such a realist reading of integral theory is out of step with the theory itself and cannot be justified as an accurate construal. For example, Wilber (2006) points out that his “‘intrinsic features’ ‘are not intrinsically intrinsic features,’” but rather that “whatever is actually ‘intrinsic’ to the Kosmos changes with each new worldspace; and thus both what ex-ists and what sub-sists are con-structions of consciousness” (pp. 250–251). Moreover, he goes on to reiterate this position by claiming that “signifiers have real referents in the only place that referents of any sort exist anyway: in a state or structure of consciousness. All referents exist, if they exist at all, in a worldspace” (p. 266). Thus, while Wilber argues for the existence of so-called ‘real’ objects, referents, and ‘intrinsic features’ that subsist, upon scrutiny it seems that such notions are, for Wilber (2012b), an idealistically contingent function of mind/consciousness/interiority and its structures: “when we actually get down to explaining what this subsistence reality is—the ‘real’—it changes with each new structure (red, amber, orange, green, etc.)” (p. 44). “The Kosmos,” Wilber (2006) writes, “looks different at each of these stages because the Kosmos is different at each of these stages” (p. 72). To be sure, for Wilber: “different worldviews create different worlds, enact different worlds, they aren’t just

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144 According to Murray (2019), Wilber’s notion of subsistence grounds integral theory in a kind of ‘realism’ wherein “what Wilber is referring to by subsistence [...] is called ‘ontological intransitivity’ by Bhaskar” (p. 313). As we shall see, it is quite clear that these concepts, while showing some surface-level resemblance, are indeed light years apart.
the same world seen differently” (p. 52); “at each stage of development the world looks different because the world is different—and there is the great postmodern revelation” (p. 58).

So for Wilber, it appears that there are realities that are not totally mind-dependent in the sense of what is brought forth synchronically in the human epistemic, subject-centred process of enactment (that is, ‘intrinsic features’ that ‘subsist’ relatively independent of a given human subject’s perception of it), but those realities are themselves inexorably mind-dependent (at least in the Whiteheadian sense of prehension145).146 We might thereby conclude that, according to integral post-metaphysics, realities are not only constituted individually and synchronically, but also diachronically and relationally, and they are contingent on specific developmental structures. While this can certainly help to distinguish Wilber’s enactivist position, for example, from solipsism and classical (e.g., Berkeleyian) forms of subjective idealism, to my mind it does little to establish a foothold in the domain of a realism that honours the epistemic anteriority and independence of the world. Such a form of ontological realism, critical realism would argue, is a *sine qua non* of an authentic and substantive break from the radicalized forms of social constructivism and epistemic relativism. Integral theory, as Wilber himself clarifies, lacks such an ontological realism, but rather is closer to a form of constructivist “superidealism”147 in its assertion, like Kuhn (1962/1996) and Feyerabend (1975),

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146 Bruce Alderman has offered some similar commentary in a post on the Integral Life website regarding the diachronic and synchronic dimensions of Wilber’s framing of enactment and intrinsic features. See: www.integrallife.com/node/226886#comment-7995
147 Despite Wilber’s (2019) nominal claim that integral theory “is not subjective idealism” (p. 458), I counterargue that integral theory is indeed a radicalized form of subjective idealism, or *superidealism*. Subjective idealism underscores the role of human agents (including their structures and methods) and/or social forms in the construction or constitution of (idealist) reality (Hartwig, 2007, p. 246), while denying realities that exist prior to
that when our theories or worldviews change, the world changes with them (Bhaskar, 1986/2009, pp. 70-92; 2016a, p. 40).

During Wilber’s earlier work (phase-4), however, he occasionally makes seemingly countervailing statements that seem to contain moments of realism. He writes, for example, that:

> So just because these experiences have an interpretive component does not mean that they are merely cultural creations. When you watch the sun set, you will bring interpretations to that experience as well—perhaps romantic, perhaps rational, each with a cultural colouring, but that doesn’t mean that the sun ceases to exist if your culture disappears. No, these are ontologically real events. They actually exist. They have real referents (Wilber, 1996, pp. p. 192-193).

and independent of their constitution by humans, which integral theory clearly does. Superidealism is a radicalized form of subjective idealism that maintains that “when our theories change, the world they investigate changes with them” (Bhaskar, 2016a, p. 40), since our theories (through their enactment via the structures and methods of the subject) are constitutive of reality. As Vandenberghe (2014) writes, “whoever suggests that the world changes with every paradigm change is drifting into super-idealism and flirting with irrationalism. Without the assumption that different theories offer alternative accounts of the same world, no science is possible. At that limit we arrive at the patently absurd proposition that there are as many worlds as there are theories and as many worlds as there are theorists, and as everybody is a theorist, as many worlds as there are individuals” (p. 4). It is clear that when Wilber (2019) analyzes “realism and idealism” he is taking ‘realism,’ like Heidegger, to mean “the doctrine that ‘things,’ in the narrow sense of physical objects [...] are the only reality”—in other words, he is equating realism with what non-Marxist philosophers call ‘materialism,’ and what Marxists refer to as ‘vulgar materialism’ (Collier, 1994, p. 30). The essence of Wilber’s (2019) rebuttal to the critiques levelled by critical realism is based on this confusion (or misuse) of the term ‘realism’ wherein realism = vulgar or reductionistic materialism. Wilber equates such ‘realism’ (viz., materialism) with the right-hand quadrants/zones and their objective-material objects, while idealism is equated with the left-hand quadrants/zones and their subjectivities. Integral theory, of course, integrates both interior, (inter)subjective dimensions and exterior, (inter)objective dimensions—idealism and ‘realism.’ This would make sense if realism were construed to equal materialism. However, critical realism, with its theory of synchronic emergent powers materialism as well as its theory of the ontological reality of ideas, reasons, and other interior objects (Bhaskar, 1975/2008b, 1997), categorically cannot be equated with a vulgar or reductionistic form of materialism. For critical realism, subjective idealism (in its various inflections) and vulgar or naive or reductionistic materialism are indeed dialectical antagonists, both sharing in the mistake of denying the causal efficacy and thus reality of ideas and ideals (interiority), understood as facets of the ontological world of nature (Bhaskar, 1997, p. 143). As such, Wilber’s (2019) discussion of ‘realism and idealism’ and defence of integral theory vis-à-vis the critiques of critical realism are a kind of straw man analysis that not only fails to refute the core critiques (integral theory’s commitment of the epistemic and actualist fallacies), but also highlights a lack of attention to the internal definitions and logic of critical realism (for example, that ‘objects’ for critical realism can be interior or exterior, individual or collective) and a tendency to reductively project the definitions and logics of integral theory onto the theories it engages (viz., critical realism = vulgar materialism).
Nonetheless, it seems clear that Wilber’s sporadic nods to realism are not rooted in a coherent and genuinely realist ontology and epistemology, but rather express a kind of intuitive and practical realism that is at odds with his actual theory: “Due to the prevalence of extreme constructivist epistemologies, I often emphasize the objectively real components of many forms of knowing, since that is the partial, but important truth that is most often being unfortunately denied” (Wilber, 2000b, p. 156). Moreover, Wilber has recently shifted his rhetorical emphasis with respect to ontology, moving from statements such as “ontology per se just does not exist” (Wilber, 2006, p. 231) to making it explicit that “ontology is real” (quoted in P. Marshall, 2012a, p. 37). It is nonetheless clear that for Wilber, and IT at large, ontology is enactively or empirically contingent (i.e., a product or ‘co-creation’ of the knowing-consciousness or experience of sentient beings/holons), developmentally stratified (i.e., according to species and psychological levels of consciousness), and therefore pluralistic (i.e., there are multiple ontologies and many worlds that may or may not referentially overlap). In short, despite the occasional counterpoint, IT champions a post-Kantian irrealist ontology of the phenomenal that is profoundly fused with epistemology at all levels, which, as we will see, is in marked contrast to that of CR (for which it wouldn’t really be considered an ontology at all).148

Despite positing this inexorable post-Kantian coupling of epistemology (and methodology) and ontology, and the interrelated rejection of the possibility of generating a post-critical, realist ontology (i.e., an ontology that is disambiguated from epistemology, and thereby makes claims

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148 For CR, an ‘ontology’ generally signifies a realist ontology, which would crucially imply that the being of an object is not fundamentally contingent on any epistemic-hermeneutic functions of consciousness, it is absolutely existentially intransitive and (in some cases) relatively causally intransitive.
about being as such, or objects that exist independent of mind and method à la Kant’s *ding an sich*), it is important to emphasize that Wilber attempts to differentiate his position from that of most strong forms of postmodern social constructivism and untempered epistemic relativism in, for example, the following ways: 1) he argues for a weaker form of social constructivism by virtue of the fact that he claims to not deny *entirely* the existence of a real world ‘out there’ by reference to his ‘intrinsic features’ and ‘ex-ist’/’subsist’ distinction; 2) by emphasizing the highly structured (e.g., through developmental structures), interactively performative, and therefore non-arbitrary process of enactment on both epistemic and methodological levels; and 3) through his underscoring of the principles of *epistemic reflexivity* and *positionality* implied in his articulation of the notion of ‘kosmic address.’

Moreover, in the domain of epistemology, it should be noted that IT possesses a sophisticated epistemic taxonomy, including its matrix of (inter)subjective structures (e.g., levels and lines; see Figure 6), as well as its methodological taxonomy known as integral methodological pluralism (IMP).  

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149 The critical realist Andrew Collier (1994) makes the distinction between ‘strong’ and ‘weak’ forms of social constructivism, claiming that CR is a weak social constructivism, in contrast to strong, voluntaristic forms of social constructivism (e.g., post-structuralism). While I occasionally deploy these terms in this chapter, it should be noted that Bhaskar (personal communication, June 16, 2013) prefers to refer to “the social construal of reality,” or *social construalism*, to describe CR’s position, rather than a weak social constructivism. For Bhaskar, there is always a pre-given structural starting point for agential action and thus construction is not voluntaristic—hence his preference for the term ‘construal’ over ‘construction.’

151 See Esbjörn-Hargens and Wilber (2006) for an introductory discussion of IMP.
IT’s taxonomy of such myriad (inter)subjective epistemic structures builds on the pioneering work of the Swiss psychologist and philosopher Jean Piaget (1896–1980). Piaget (see e.g., 1928, 1932, 1971a, 1971b, 1972, 1977; Piaget & Inhelder, 1969/2000) employed empirical methods to observe and code the patterning of diverse capacities for thought and action, as human beings develop from infancy to various stages of adulthood. In this way, he rationally reconstructed the conditions for the possibility of various cognitive skills/events and designated

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**Note:** Piaget’s ‘sensorimotor’ stage is intentionally placed in the early part of ‘infrared’ altitude, as it does not align exactly with the full infrared stage.

**While the epistemic structures in Figure 6 are depicted vertically, and therefore appear as unilinear sequences of levels, this is merely one possible visual metaphor or signifier that both reveals and conceals aspects of the more complex referents of these models. Thus, this depiction underscores the hierarchical and linear aspects of the models. However, many of these models, and IT at large, acknowledge non-linear elements (e.g., regressions), processual complexities (e.g., inhabiting multiple structures in a probabilistic manner), and use multiple metaphors (such as ‘waves’ and ‘streams’ for levels and lines, respectively) as well. To see these levels and lines depicted vertically, and conclude that they are merely unilinear structures ‘stacked on top of each other,’ in my view may imply a lack of in-depth understanding of the models in question as well as a lack of epistemic reflexivity or awareness of both the symbolic and limited nature of visual representations, as well as how those representations are being experienced and construed, perhaps idiosyncratically, in the observing subject. Ironically, engagement with those very models may help to avoid such reification on a semiotic and empirical level and serve to develop such (lacking) epistemic reflexivity.
numerous (epistemic) structures that he saw as the fundamental causal mechanisms necessarily undergirding them. Over the course of his career, Piaget amassed a copious body of evidence for his developmental theory—known as genetic epistemology (referring to the genesis or origins of knowledge, not genes/DNA or biological genetics)—essentially birthing the field of developmental-structuralism and inspiring many researchers to further probe, test, and expand his model to delineate the higher reaches of adult development (i.e., beyond his ‘formal operational’ stage of linear rationality). This neo-Piagetian stream of developmental-structuralism has subjected Piaget’s general model to careful scrutiny within multiple research paradigms, and the essence of the model has generally stood the test of time and demonstrated both its scientific validity and cross-cultural universality across the globe (Gardiner & Kosmitzki, 2004). As Gardiner and Kosmitzki (2004) state, “These stages have been studied from a cross-cultural perspective, and research evidence suggests that some aspects may be universal (the sequence of stages) while others (the stage of formal operations) may not” (p. 123). More specifically, most researchers in the field appear to agree that Piaget’s stage-sequence and fundamental model is cross-culturally valid, yet this does not mean that all people in all cultures will reach the formal operational stage (or any stage beyond the initial sensory-motor stage, for that matter)—it is a sequence of concrete universal potentials which may or may not be contingently actualized in a given socio-cultural milieu. That said, it is relatively common for many adults around the world to reach the concrete operational or formal operational stages.
Moreover, researchers in the neo-Piagetian tradition have found evidence for cognitive development beyond the level of formal (abstract, rational) operations—that is, various levels of post-formal (systemic, dialectical) thought (Commons et al., 1984; Kegan, 1994; Rose & Fischer, 2009). The study of such post-formal thought structures, often referred to as the sub-field of adult cognitive development, has clarified that, contrary to common cultural ‘folk’ theories, human beings have the potential to continue to evolve and flourish into higher levels of development throughout their entire lifespan, well beyond when the brain is purported to typically finish its development around age 25.

At the same time, the neo-Piagetians have introduced a number of important nuances and distinctions that do much to address a number of common objections and criticisms to developmental models, including their potential abuses when coupled with simple ‘growth to goodness’ normative assumptions, their purported unilinear and unidirectional trajectory of ‘progress,’ and their alleged ‘Eurocentricity,’ to name a few.154 Additionally, various researchers have used a broadly neo-Piagetian developmental-structural approach to delineate their own similarly forged (and generally more advanced) stage models in a number of domains or lines such as cognition (Basseches, 1984, 2005; Commons et al., 1984; T. L. Dawson, 2001, 2002, 2004; Fisher, 1980; Fisher & Biddle, 2006; Rose & Fischer, 2009), reflective judgement (King & Kitchener, 1994), socio-emotional development (Kegan, 1982, 1994, 2001), ego-identity (Cook-Greuter, 1999, 2000, 2002; Loevinger, 1977, 1987), and morality (Armon, 1984; Kohlberg, 1984). It, based on neo-Piagetian developmental-structural psychology, thus posits that

154 See Appendix Five for more on the complexities and critiques of the notion of ‘development.’
empirical human knowing is situated within an invariant, though dialectical and non-unilinear, trajectory through hierarchically structured stages—stages that function as key generative mechanisms in the enactment of what ‘ex-ists’ out of the ‘subsist’ level. Based on a meta-analysis of many of the best neo-Piagetian developmental-structural theories, IT articulates a synthetic metatheory that is arguably the most comprehensive taxonomy of these epistemic structures brought forth to date (Wilber, 2000a, 2006). Specifically, Wilber’s (2000a) metatheoretical taxonomy articulates an overarching scientific metatheory of psychological development based on a review of over 100 developmental systems, delineating a sequence of ‘correlative basic structures’ of cognition. Subsequently, Wilber (2006) augmented his psychological metatheory with reference to his colour scheme of ‘altitudes’ or generalized ‘levels of consciousness’ which, rather than referring to specific cognitive meta-structures or ‘fulcrums,’ are devoid of content and refer to the context (or consciousness) in which particular contents arise. In both cases, Wilber’s approach is second-order metatheoretical, in contrast to the other developmental models in Figure 6 which are firmly grounded in first-order empirical research.

In addition to its matrix of epistemic structures, IT also articulates a robust methodological taxonomy, IMP (see Figure 7), that can be seen as an important aspect of its overall epistemic taxonomy (Esbjörn-Hargens & Wilber, 2006; Wilber, 2003, 2006).
IMP is a meta-methodological map of eight event horizons that situate eight corresponding methodological families to explore and disclose the dynamic interrelationships between (inter)subjective and (inter)objective aspects of reality. IMP also articulates the systematic interrelationships between each of the major methodological families, allowing the researcher to thereby combine, coordinate, and systematically integrate the multiplicity of methodologies and methods (both qualitative and quantitative) available for scientific inquiry. IMP has been operationalized as a practical framework, known as integral research (IR), which supports researchers to reflect on and self-reflexively situate the unique interpretive lens (and its strengths and weaknesses) that each researcher brings to their inquiry (Esbjörn-Hargens, 2006;
Hedlund, 2008, 2010a, 2010b). In these ways, it offers a (broadly) scientific framework that goes beyond the unprincipled eclecticism that plagues many other integrative and multi-methodological approaches.

IT’s overall epistemic taxonomy can thus be understood to represent an important scientific ontology that must be grappled with by any panoptic or comprehensive metatheory. In short, while IT lacks an explicit philosophical ontology, it nonetheless has a fairly comprehensive and sophisticated, systematically structured scientific ontology of the psychological, cultural, and methodological mechanisms that help to mediate and construct knowledge. Taken as a totality, IT’s epistemic taxonomy constitutes an arguably robust metatheory β, based largely on scientific findings, of the varied and often divergent ways that human beings experience and relate to aspects of the world—and is therefore among its primary contributions.

**Critical Realism’s Ontology and Epistemology**

In this section, I will provide a synoptic overview of CR’s basic (transcendental realist and critical naturalist) ontology and epistemology (also see Marshall, 2012b, for a broad overview), while omitting CR’s more complex dialectical and spiritual turns, since they deepen but do not fundamentally shift or depart from CR’s basic ontology and epistemology. In contrast to IT,

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158 Also see the special issue of the *Journal of Integral Theory and Practice* on integral research 5(2).
159 The latter two phases in the development of critical realism, dialectical critical realism and the philosophy of meta-Reality, both therefore bring greater depth, complexity, and internal coherence to the ontology articulated in basic critical realism, but fundamentally do not alter the basic propositions of basic critical realism. Basic critical realism articulates an ontology in which being is *structured and differentiated* (in terms of the domains of the real, the actual and the empirical; the intransitive and the transitive dimensions). Dialectical critical realism deepens the basic critical realist ontology by explicitly thematizing the primacy of *negativity* or ontological absence (and highlighting its essential role for an adequate theorization of process and change). It also highlights that objects are complex *totalities* with internal relatedness and holistic causality; and by thematizing *transformative agency and reflexivity* as inherent in being. Meta-Reality thematizes the *inwardness* or interiority and spirituality of being;
CR has an explicit philosophical ontology, deploying a variation on a Kantian transcendental mode of argument in relation to conceptualized human activities such as experimentation, both in science and more generally, to arrive at a definitively non-Kantian (object- rather than subject-oriented) transcendental realist position. A transcendental argument is generally understood to be a philosophical argument that takes some concretely manifest phenomenon or aspect of experience as given, and then deploys a logic that is neither inductive nor deductive but a kind of reverse deduction, or *retruction*, of the general necessary conditions for the possibility of that phenomenon—that which must be the case for it to be possible and intelligible. Instead of following the logical trajectory from premise to conclusion, retroductive or abductive arguments move from conclusion to premise, or from what is given in experience to an elucidation of the necessary conditions for its possibility. Such transcendental arguments, for Bhaskar (1975/2008a), are in no way foundationalist, as they begin from the contingent facts implied by the given phenomenon or account they seek to analyze: “Knowledge [including its transcendental variety], viewed as a transitive process, has no foundation—only a structure in time” (p. 189). In Bhaskar’s formulation of philosophical method, both the premises and conclusions of transcendental arguments are contingent facts, but the conclusions, in contrast to their premises, are not necessarily social. In other words, the conclusions of transcendental arguments may relate to the natural world, establishing *apodictic* or necessarily true synthetic *a priori* knowledge about the world. But they are nonetheless transitive, relative, and

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being as *reenchanted* and thus possessing intrinsic value and meaning; and being as incorporating identity over non-identity, or *non-duality*.

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\(^{160}\) See Appendix Five for a definition of ‘apodictic’ knowledge.
contingent truths, since they flow from geo-historically relative premises (Bhaskar, 1975/2008b; Hartwig, 2008).

One of Bhaskar’s signature innovations is to propose a decoupling of transcendental modes of argumentation from their characteristically Kantian orientation toward ideal and subjective structures. As Bhaskar (1975/2008a) writes,

If philosophy is to be possible (and I want to contend that it is in practice indispensable) then it must follow the Kantian road. But in doing so it must both avoid any commitment to the content of specific theories and recognize the conditional nature of all its results. Moreover, it must reject two presuppositions which were central to Kant’s own philosophical project, viz that in any inquiry of the form ‘what must be the case for $Φ$ to be possible?’ the conclusion, $X$, would be a fact about us and that $Φ$ must invariably stand for some universal operation of the mind. That is to say, it must reject the idealist and individualist cast into which Kant pressed his own inquiries (p. 5).

Bhaskar (1975/2008b) thereby arrives at CR’s core ontology by asking an (inverted) Kantian-transcendental question: not ‘What must the mind be like for science to be possible?’, as Kant asked, but rather ‘What must the world be like for science to be possible?’ For Kant, more than just constant conjunctions of empirical events and inductive inference is needed to understand causality and the possibility of science (as his predecessor David Hume would have it); rather, a \textit{a priori} categories of the mind (space, time, and causality) synthetically structure knowledge of those constant conjunctions of events or empirical regularities and undergird the possibility of science. As Bhaskar (1975/2008b) highlights through rigorous transcendental or presuppositional analysis involving both retroductive and deductive logic, as elaborated below, it is the ontological reality and structure of a mind-independent object-world that structures knowledge and must be presupposed on an \textit{a priori} philosophical level, if \textit{a posteriori} science is to be intelligible at all—it is a necessary condition for the possibility and intelligibility of
experimental science. (This premise of human experimental practice is later generalized to include all forms of human practice.) More precisely, Bhaskar (1975/2008b) claims that a necessary condition for the possibility of science is the existence of “intransitive objects” by which he does not mean simple gross-material entities (as in IT’s right-hand/exterior quadrants), but rather real generative mechanisms, structures, and powers that exist autonomously of human minds and can be uncorrelated or “out of phase” with actual patterns of events or empirical observations (p. 13). This position argues for a natural world composed of things possessing causal powers and generative mechanisms in virtue of their structure and existing and acting anterior to and independently of human interpretation, knowledge, enactment, or discourse. As such, CR thoroughly de-couples and disambiguates ontology from epistemology, while making epistemology secondary to ontology (the former is ‘constellationally contained’ by the latter), since knowledge of the world (in some domain) depends evidently on the nature of the world (i.e., what the world is like in that domain). However, it is important to note that such a disambiguation is understood by CR not in the sense that ontology and epistemology are fundamentally split off from each other, but rather that ontology constellationally contains (or hollarchically embraces) epistemology, meaning that they are two differentiated (not dissociated) and asymmetrically related facets of an underlying unity or identity. Hartwig (2007) underscores this point, stating that:

> the two dimensions, whilst distinct, are not discrete; dialectically speaking, they [...] constitute[e] a constellational identity [...] wherein epistemology/the TD is seen as constellationally contained within ontology/the ID [...] There is not a transitive dimension ‘in here,’ and an intransitive one ‘out there,’ though of course the causal laws of nature endure and operate independently of us. Everything—including the knowledge-seeker—is within being, of which epistemology/the TD is an emergent stratum (p. 256).

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161 As we will see, when considering the social sciences in Bhaskar’s critical naturalism, human knowledge and interpretation is not separate from the world, but rather a causally interdependent, participatory part of it.
This stands in stark contrast to IT’s neo-Kantian position that leads with epistemology and developmental levels in expounding its notion of ‘enacted objects.’ Thus, according to CR, all socially produced scientific theories or interpretive knowledge claims (the *transitive* dimension) are concerned with an absolutely (most natural mechanisms) or relatively (most social mechanisms) theory-independent object-world (the *intransitive* dimension),\(^{162}\) whether they explicitly acknowledge it or not. Referring to this notion that “knowledge” has both a hermeneutical (transitive) as well as realist (intransitive) element, Bhaskar (1975/2008b) writes:

Any adequate philosophy of science must find a way of grappling with this central paradox of science: that men in their social activity produce knowledge which is a social product much like any other, which is no more independent of its production and the men who produce it than motor cars, armchairs or books, which has its own craftsmen, technicians, publicists, standards and skills and which is no less subject to change than any other commodity. This is one side of ‘knowledge.’ The other is that knowledge is ‘of’ things which are not produced by men at all: the specific gravity of mercury, the process of electrolysis, the mechanism of light propagation. None of these ‘objects of knowledge’ depend on human activity. If men ceased to exist sound would continue to travel and heavy bodies fall to the earth in exactly the same way, though ex hypothesi there would be no-one to know it (p. 21, original emphasis).

Thus, as Bhaskar suggests in this passage, CR holds that with the emergence of human (and other) forms of consciousness, the world is characterized by a kind of duality in which (intransitive) objects (in a general categorical and dispositional/tendential sense) have their own existence (and agency) outside of human knowledge and interpretation, but can only be known in their specific contents, rich textures, and nuances in and through (transitive) scientific inquiry and human interpretation/construal.

\(^{162}\) By “intransitive” Bhaskar does not mean to suggest that objects/generative mechanisms are somehow static (they are more like dynamical attractors), but rather that they are either relatively or absolutely independent of human knowledge and practices in relation to them. Throughout the universe, including the social world, objects are existentially absolutely independent of human knowledge in the sense that, once constituted, nothing can then alter the reasons for (and fact of) this, while the fundamental generative structures of the natural world are causally absolutely independent, and those of the social world relatively so.
The proposition that intransitive objects can be (and often are) ‘out of phase’ or synchronization with actual patterns of events means that certain aspects of an object’s generative powers may either act or lie dormant depending on various conditions and complex, dynamic interrelations with other objects. Thus, an intransitive object (generative mechanism) will not produce the same actual events in all contexts. Bhaskar (1975/2008b) justifies his proposition that intransitive objects are the necessarily presupposed condition for science by transcendental analysis of the social practice of scientific experiment, stating that:

> an experiment is necessary precisely to the extent that the pattern of events forthcoming under experimental conditions would not be forthcoming without it. Thus in an experiment we are a causal agent of the sequence of events, but not of the causal law which the sequence of events, because it has been produced under experimental conditions, enables us to identify (p. 33).

Thus, as Bhaskar elucidates, the (closed systemic) experimental conditions draw out or disclose a particular pattern of events that would not otherwise have manifested (in an open systemic context), thus eliminating others while illuminating and identifying the real mechanisms producing the empirically observable pattern of events—the experiment brings the real and the actual temporarily into phase. In the extraordinary circumstance of an experimentally closed systemic context, objects tend to ‘obtain’ or disclose unique sequences or patterns of events, or aspects of their potential event horizon. But in the extra-laboratory context of nearly ubiquitous open systems, objects/generative mechanisms can be either dormant or occluded by the complexity (‘multi-mechanicity’) of other causes within a network of mechanisms. Furthermore, the experience of particular patterns of events can also be ‘out of phase’ with the events themselves. It is on this basis that CR posits that the world is structured or stratified in terms of three overlapping but distinct domains: the real (generative mechanisms, structures,
fields, tendencies and powers plus events and experiences), the actual (events plus experiences), and the empirical (experiences) (see Figure 8). These can likewise be understood as the (real) essence, (actual) expression, and (empirical) experience of an object, respectively. Moreover, as the intelligibility of scientific change and development shows, the domain of the real is itself depth-stratified or ontologically deep such that the levels overlap in a nested manner: the real>the actual>the empirical, where ‘>’ means co-includes or constellationally overreaches. Moreover, the distinct stratum of the real (as generative mechanisms) is depth stratified or layered, meaning, for example, that there are distinct, emergent mechanisms in the inorganic world or physiosphere, the biosphere, and the sociosphere.

<table>
<thead>
<tr>
<th>Stratum in CR's Depth Ontology</th>
<th>Refers to:</th>
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<tbody>
<tr>
<td>The Real = Generative Mechanisms (+ Events and Experiences)</td>
<td>Underlying generative (causal) mechanisms or structures or fields that co-produce the flux of phenomena (events). These are themselves depth-stratified or layered (e.g., mechanisms of the inorganic world, the biosphere, and the sociosphere).</td>
</tr>
<tr>
<td>The Actual = Events (+ Experiences)</td>
<td>Events (whether observed or not) (e.g., Big Bang, the French Revolution, a human action)</td>
</tr>
<tr>
<td>The Empirical = Experiences</td>
<td>Experiences, empirical observations of events (e.g., what you see through microscopes or in historical documents)</td>
</tr>
</tbody>
</table>

**Figure 8: Three Levels of Depth in CR’s Ontology**
In noting the different expression of objects in open and closed systemic contexts (i.e., what Bhaskar refers to as their “transfactuality”) and distinguishing between objects/generative mechanisms (level of the real), events/actualities (level of the actual), and the experiential and semiotic (level of the empirical), CR is, in effect, espousing a profoundly anti-reductionistic notion that one might call an ontological excess or super-abundant potentiality, in which the real is bursting forth with a myriad of inexhaustible possibilities and potentials and expresses its creative fecundity on a level that eludes a definitive and exhaustive understanding, dominion, and control. That is, for CR, the being or essence of an object always exceeds—is wildly more vast and charged with causal potential than—any patterns of events manifested on the level of the actual and experienced on the level of the empirical (or even the sum of those actual and empirical events).

It is worth noting some resonances between what I am calling CR’s ontological excess and the notion of ‘withdrawal’ in continental philosophy. ‘Withdrawal’ was originally coined by Martin Heidegger (1889-1976), but has been re-invoked and transformed by the speculative realists, particularly Harman and Bryant. CR would emphasize, in contrast to the emphasis in the notion of withdrawal, that while the being of an object is deeper than the ways in which it is being actualized and experienced, and is beyond our dominion and control, it is not completely elusive and unknowable. Rather, it is, in principle, knowable via various philosophical and scientific transcendental procedures. It is important to note, however, that from a CR

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163 See Chapter 1 of Harman (2002) for an analysis of the emergence of the term and his subsequent transformation of it.
perspective any employment of the notion of withdrawal would need to cut both ways, rather than being conceived of as a one-sided, anthropocentric phenomenon. This means that humans and their experience would need to be understood as withdrawn from the object (whether human or non-human) we are encountering too—from the perspective of objects in the world, knowing subjects and their experience are likewise withdrawn from objects in the world. It is also worth noting here that integral theory has its own implicit notion of inexhaustibility or withdrawal, as seen for example in Esbjörn-Hargens & Zimmerman’s (2009) “there is no single tree” section of their impressive book, Integral Ecology: Uniting Multiple Perspectives on the Natural World. They claim that all the enactments of the tree (be they human or non-human) do not exhaust the tree. While there are some important differences between IT and CR here, there are also some important resonances.

For CR, in the case of a human social actor, to presuppose that the being of that actor can be equated with my view of that actor based on my access to them clearly is absurd, alienating, and unjustifiable, even in the rare case that I am expressing the alethic truth of that being (as opposed to demi-real projections and/or distortions). Rather, the being of that human is always seeded with incalculable possibilities and potentials—and thereby is deeper than the particular pattern of events it is actually manifesting, as well as how those events are experienced/enacted by other actors; it cannot be reduced to the pattern of its manifestation and/or experience. And even the sum of any finite set of perspectives or modes of access to

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164 Technically, for CR, a human being is a ‘concrete singularity’—a unique product of a multiplicity of mechanisms (1M) in process (2E) subject to a myriad of substantive mediations (3L) issuing in a concretely singular resulting
that being would not exhaust it, as the being of any object has an infinite number of actualizations and/or interpretations in experience and therefore ontologically exceeds all epistemic construal. As such, CR lands a powerful blow on all forms of (post)positivism, empirical verificationism, and the like—even in their most expanded forms that are inclusive of interiority (e.g., James’ “radical empiricism” and Wilber’s “deep/broad empiricism”). In short, CR’s ontology posits the existence of a real, differentiated, and depth-stratified world, independent of human knowledge and methodology, in which the domains of the real, actual, and empirical are categorically distinct. At the level of the real, objects have an undeniable, but often somewhat opaque and elusively vast, existence and potential. Working from the level of the actual and the empirical, aspects of the real can be disclosed through human inquiry, and rich knowledge of the nuances, contours, and textures of objects’ contextual manifestations can be obtained, despite the inevitable fallibility and partiality of human knowledge production.

Having established a robust philosophy of experimental natural science (transcendental realism), CR progressed to articulate a philosophy of social science, known as critical naturalism. Critical naturalism distinguishes some important differences between the natural sciences and the social sciences and their respective object domains of inquiry. These distinctions, as we will see, have some important implications.

In Bhaskar’s (1979/1998) principal text on critical naturalism, *The Possibility of Naturalism: A Philosophical Critique of the Contemporary Human Sciences*, he explores the extent to which his embodied personality (4D). The result of this particular causal chain is highly contingent, could always have been very different, and is immensely unlikely and immensely indeterministic (Hartwig, 2007, p. 444).
transcendental realist account of the natural sciences is applicable to the social sciences. In doing so, he formulates the basis for the (modified) application of his transcendental realist philosophy of natural science within the social sciences (“critical naturalism”). This exploration depends on formulating some conception of the differing subject matter of the social and natural sciences, since for transcendental realism it is the nature of the objects that determines their cognitive possibilities for human inquiry. Hence, Bhaskar formulates a systematic response to the following question: What properties do human societies possess that make them possible objects of knowledge for human beings and differentiate them from the objects of inquiry in the natural sciences?

Analysis of the subject matter of the social sciences leads Bhaskar to the employment of the method of imminent critique within extant philosophy of social science to reveal its own internal contradictions, aporias, or inadequacies, and establish the basic validity of critical realism’s application within the social sciences. Just as experimentation or recourse to experience was a very prominent feature of the philosophy of natural science, a prominent feature of the philosophy of social science, according to Bhaskar, was the existence of sharp theoretical dualisms, both macro and micro. The macro-dualisms Bhaskar identified include the following:

- Structure and agency
- Individualism and collectivism (holism)
- Conceptuality (language) and materiality (behaviour)

These macro-dualisms, Bhaskar argues, are sustained by four micro-dualisms:
Bhaskar critiques these dualisms on the way to drawing out characteristic features of society and ultimately sublating them in a critical realist resolution. Additionally, Bhaskar identifies an epistemological meta-dualism, supervening these macro- and micro-dualisms, vis-à-vis the question of the extent to which the social sciences can be studied in the same way as the natural sciences. On the one hand, positivism (or naturalism) holds that the social world can be studied in essentially the same way as the natural world—and that this is the only ‘scientific’ way. On the other hand, social constructivist hermeneutics, according to Bhaskar, argues that there is a rupture between the social and natural sciences, and we cannot study the social world naturalistically due to the inexorably linguistic/conceptual nature of social life. For CR, however, hermeneutics is a first step in the social sciences—it is a necessary, but not sufficient component of the social landscape and social science. What it argues to be the central feature of social life—complex conceptuality and language—is indeed a very important feature of social life that marks a crucial difference from the natural world. In this way, CR argues that while social life is indeed conceptual and concept-dependent, it is not exhaustible by conceptuality (and language). The critical realist view of social life is that we are not just conceptual, but also material and embodied. Thus, for CR the partiality of the hermeneuticist claims must be situated, and its enduring insights integrated into a wider critical naturalist position.

CR’s understanding of the relationship between the natural and social sciences also contrasts with the Habermasian perspective (Habermas, 1970/1996), which IT largely adopts, that argues...
for a domain-specific differentiation of the positivistic natural and hermeneutic/human sciences. In this conception, there is no immanent critique of the architectonics of positivism, but rather a plea for its non-encroachment on the human sciences, which, Habermas argues, should be the domain of the hermeneutic sciences, leaving positivism essentially intact, albeit delimited in its purview. In contrast, CR wages a root-level, devastating critique of positivist science that calls into question its fundamental validity in the natural sciences, as well as the social/human sciences. CR likewise expounds a qualified anti-positivist (or critical) naturalism that: articulates the essential differences between the subject-matters of the natural and social sciences; provides a basis for their irreducibility; and calls for a differentiation in methods. For CR, social science is recursively and internally related to its own subject matter, but this is not true in the same way for natural science. Thus, social scientific descriptions of the social world are necessarily reflexive reproductions and/or transformations that, in part, constitute the social world itself. For CR, however, this does not result in an infinite regress and strong social constructivism, but rather, CR argues that once an object or structure has come into being in the social world, just as in the natural world, it is both determined and determinate, and inalterable—that is, it is existentially intransitive. As critical realist Mervyn Hartwig (2007) states, “once an entity has come into existence at t₁ there is nothing that can happen at t₂ which can alter the fact and causes of its existence at t₁” (p. 264). Such an entity or structure may be partly causally constituted in a causally interdependent, recursive manner (as in social science), and therefore only relatively intransitive in a causal sense, but not an existential one. In short, social scientific knowledge (in the transitive dimension) of a social reality is partially constitutive of the social reality it describes such that the transitive and intransitive dimension remain
categorically distinct but not discrete—that is, they are recursively interconnected to some extent in the sociosphere. Take, for example, the possibility that workers being studied at the Hawthorne Works, a Western Electric plant in Cicero, Illinois, USA in the 1920s and 1930s, increased their productivity as a result of being observed and studied by social scientists—scientific-observational knowledge of the workers was of course not siloed vis-à-vis the workers themselves—it partly constituted (and changed) the social reality of the electric plant and the culture of its workers, and thus the social scientific knowledge was in a relation of recursive, causal interdependence with the social events and realities that it was attempting to describe. The acknowledgment of this causally recursive interdependence, however, by no means is a conflation or reduction of ontology and epistemology as in the epistemic fallacy. Rather, it is an important part of the basis for a realism that is critical in the sense that it both acknowledges epistemic relativity and fallibility, as well as the complex recursivity, or causal interdependence, of epistemology and ontology in the social domain. Critical naturalism, in short, underscores crucial ontological differences in the natural world versus the social world, and draws out their implications for the production of knowledge relative to these domains in the natural and social sciences, respectively. According to critical naturalist philosophy of social science, truth claims in the social world are intrinsically more complex and difficult to maintain and justify than in the natural world. Not only does the causal interdependence and recursivity of social objects vis-à-vis (the social object of) the knowledge of those objects complexify the proposition, but for CR, there is not just a changing knowledge of largely unchanging things, as can sometimes be the case in the natural sciences, but in the social domain social scientific knowledge is understood as changing knowledge of heterogeneous and changing objects. It should be
understood, therefore, that realism in the social domain is marred by an emergent ontological complexity and intricacy that constellates a certain epistemological opacity, rendering it as arduous and contested as it is indispensable and inexorable.

CR offers a compelling ontology that shares positivism’s interest in the objective world and identifying causes, yet it diverges radically from it in claiming that the study of the empirical, in and of itself, is too superficial, since it disregards the unobservable generative mechanisms that produce the actual events and empirical phenomena that positivists seek to measure and explain.\textsuperscript{165} CR argues simultaneously for a weak constructivism and (critical) ontological realism—that is, an epistemological relativism or pluralism that simultaneously acknowledges a universal, intransitive ontological dimension to reality. And just in virtue of ontological realism and epistemic relativity, it espouses a third (mediating) element in its “holy trinity”: \textit{judgemental rationality}—the possibility of arriving at non-arbitrary views about the world. As Bhaskar (2002a) puts it,

\begin{quote}
This trinity of ontological realism, epistemological relativism and judgemental rationalism allows us to sustain say the postmodernists’ grasp on difference, the processual, the geo-historical diversity and change, all of which are quite true, with ontological realism, that is, a belief in the existence of a reality which does not depend on our subjective interpretations of it and with judgemental rationality, that is, with the idea that we have better or worse grounds for belief and action (p. 13).
\end{quote}

CR is therefore a higher-order sublation (transcendence and inclusion) of (modern) naturalistic positivism and (postmodern) constructivist hermeneutics that articulates an ontology and epistemology honouring not only the creative agency of the human subject, but also the reality (and agency) of objects in the world (Alvesson & Sköldberg, 2009). CR thus is a post-

\textsuperscript{165} See Alvesson and Sköldberg (2009).
postmodern or metamodern (Freinacht, 2017) metatheory that argues persuasively against the reduction of ontology to epistemology (referred to as the ‘epistemic fallacy’), and against the reduction or conflation of the domain of the real to the domains of the actual/empirical (known as ‘actualism’166). That is, it argues for the irreducibility of the reality of causal structures and generative mechanisms to the manifest patterns of events that they produce (Alvesson & Sköldberg, 2009).

In this chapter, I have provided a synoptic overview of IT’s and CR’s respective basic ontologies and epistemologies. While a comprehensive overview is not possible given the limitations of this thesis, these synopses disclose the key architectonics and systemic logics of each metatheory. Having articulated each in turn, we are now in a position to turn to their evaluation, refracting each in the light of the other in order to analyze them in terms of potential internal contradictions and absences, assessing each for internal coherence and their capacity to reflexively sustain an account of themselves.

166 See Appendix Five for a definition of ‘actualism.’
CHAPTER 4—Towards a Metatheoretical Synthesis: From Critical Realism and Integral Theory to Visionary Realism

*getting back to reality means embracing a new kind of metaphysics (an integrative evolutionary realism), a paradigm that is still being explicated at the leading edge of metatheory.*

Zachary Stein

In this chapter, the inquiry into the philosophical underlabouring for addressing the metacrisis is continued through the evaluation of both integral theory and critical realism, refracting each in the light of the other in order to analyze and assess them for their internal coherence, comprehensiveness, and capacity to reflexively sustain an account of themselves. In doing so, I aim to forge the contours of a non-preservative synthesis of CR and IT, articulating how the ontological and epistemological architectonics of the two schools might be negatively transfigured and synthesized into a more comprehensive and robust (expression of) integrative metatheory 2.0—a visionary realism—that could potentially unite the strengths of both while addressing and beginning to transform their respective liabilities (absences and contradictions).

To be sure, as mentioned in the philosophical methods section of Chapter 1, my hermeneutic method here is dialectical in a *transformative-sublatory* sense (à la Bhaskar), as opposed to preservative-synthetic (à la Hegel) (Bhaskar, 1993/2008; Norrie, 2010). By that I mean that I

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167 (Stein, 2018b, pp. 211-212).

168 By emphasizing the negative dimension (absence, contradiction, and negative transfiguration), my approach, inspired by dialectical critical realism, is ontologically bivalent (if not polyvalent) (Bhaskar, 2010, p. 15), rather than ontologically monovalent (the doctrine that being is purely positive and present), like that of Hegel’s dialectic (Bhaskar, 1993/2008, 1994/2009). Wilber’s evolutionary theory, despite his references to Hegel, cannot be considered dialectical in the Bhaskarian sense, as it lacks a theory of real determinate absence or ontological negativity. In his attempt to affirm the wholeness of Being in his neo-Platonic approach, Wilber glosses over negativity, absence, and contradictions in constructing a metanarrative that emphasizes a teleological transcendent identity at the expense of a due acknowledgment of real negativity and contradiction. Contradictions, for Wilber, seem to be intrinsically resolved in the moment of transcendence, wherein they are somehow mystically overcome. While Wilber offers some conceptual support for this theory, including the
aim to engage each metatheory with an eye for identifying internal contradictions and absences (or other inconsistencies, anomalies, and aporias), while shedding some light on some of their potential causes, rather than papering over real contradictions and absences. Such a method of immanent critique initiates a movement toward the rethinking of (aspects of) each metatheory’s foundations—charting a trajectory toward an expanded conceptual field (namely, a visionary realism) that eschews and remedies absences and contradictions in each theory’s pre-existing form. Importantly, this involves a negative transfiguration of elements within both theories. Thus, when I refer to an emergent ‘synthesis’ in the context of developing a visionary realism, it should be understood in this explicitly non-preservative sublatory sense.\footnote{\textsuperscript{169}}

Having clarified my method, I begin by critically analyzing integral theory in the light of CR, before likewise exploring CR from the perspective of IT.

\textit{Integral Theory in the Light of Critical Realism}

From a critical realist standpoint, it could be argued that IT’s post-metaphysical coupling of ontology and epistemology (and methodology), constitutes a form of neo-Kantian reductionism that CR refers to as the ‘epistemic fallacy,’ a philosophical stance that harkens back to ancient important notion of ‘enduring’ versus ‘transitional’ features of each developmental structure (Wilber, 2000a), this line of thinking is underdeveloped, which is justified by the mystical function of transcendence (negation of contradictions is a constitutive function of transcendence in Wilber’s Hegelian ascent to self-realized Spirit). This approach also misleadingly implies that real contradictions and dynamics of oppression and alienation can be transcended in individual psycho-spiritual development, thus reinforcing a false dichotomy between inner development and social transformation, rather than a systemic interdependence and recursivity, as implied in the notion of Bildung (Andersen, 2020).

\footnote{\textsuperscript{169}} Transcendence or emergence implies first a transformative negation (which is only partly preservative) whereas synthesis can imply a more purely positive and summative approach (Bhaskar, 1993/2008). As Bhaskar (1993/2008) states, “emergence may involve a substantial degree of non-preservative, rather than simply additive, superstructuration. And the result may be internally complex and differentiated, consisting in a ‘laminated’ system, whose internal elements are necessarily ‘bonded’ in a multiplicity of structures (perhaps composed of their own structured hierarchies and sub-totalities). Such systems may be [...] asymmetrically weighted, and contextually variable [...] composing an internal pluriverse [...] populated by a plurality of narratives, internal discordance and even palpable contradictions” (p. 50).
Greek philosophy (i.e., Parmenides, Protagoras, and Plato), and has arguably been dominant in Western thought since the seventeenth century, which can be largely attributed to the work of Descartes, Hume, and Kant. According to Bhaskar (1975/2008b), the epistemic fallacy:

consists in the view that statements about being can be reduced to or analysed in terms of statements about knowledge; i.e., that ontological questions can always be transposed into epistemological terms. The idea that being can always be analysed in terms of our knowledge of being, that it is sufficient for philosophy to ‘treat only of the network, and not what the network describes,’ results in the systematic dissolution of the idea of a world (which I shall here metaphorically characterize as an ontological realm) independent of but investigated by science (pp. 36–37).

In short, the epistemic fallacy refers to the conflation of ontology and epistemology—the reduction of being as such to knowledge of being. The speculative realists refer to this as ‘correlationism’: the perspective that reality exists solely in and through the co-constitutive activity of the subjective cognition of finite beings (see e.g., Assiter, 2013; Meillassoux, 2008).

To be sure, IT’s post-metaphysical approach commits the epistemic fallacy in claiming that the being of ontological objects is constituted through a subject’s epistemic structures (e.g., developmental levels of consciousness) and methodological injunctions in the process of enactment.

While Wilber (2012a, 2012b) claims that IT does not commit the epistemic fallacy, I hope to make a convincing case to the contrary. Without a stratified ontology that distinguishes the real, the actual, and the empirical, as well as the intransitive and transitive dimensions, it is likely that it will continue to succumb to the epistemic fallacy—be stuck in the ‘correlationist circle,’ as the speculative realists call it. Wilber also argues that his distinction between ‘ex-ist’ and ‘subsist’ is: “similar to CR’s transitive (ex-ist) and intransitive (subsist) with one major exception: as noted, IT is panpsychic—epistemology and ontology/consciousness and being cannot be torn asunder. What we call ‘pre-human ontology’ is actually a pre-human sentient holon’s epistemic-ontic Wholeness, and not merely a disembodied, floating, ‘view-from-nowhere’ ontology. A molecule’s prehension-knowing-proto-
status of being as such to epistemological questions of being as it is brought forth and known in actual events and (broad) empirical experience. In Wilber’s (2006) words, the ontological status of objects in themselves “CANNOT BE KNOWN,” and thus IT posits that the object has no ontic status, or reality outside of the “con-structions of consciousness” (pp. 250–251). While CR would concede that actual events cannot be known outside of the epistemic translations inevitably associated with substantive empirical inquiry, it would, of course, claim that the ontological status of objects in their most essential and categorical features can be known through transcendental analysis and indeed must be presupposed. This general position is likewise held by most speculative realists, such as Harman (2011a), who writes that “[t]he world is not the world as manifest to humans; to think a reality beyond our thinking is not nonsense, but obligatory” (p. 26). Moreover, for CR, there is always a difference in principle between the transitive, epistemic dimension of anything—an experience, event, or mechanism—and its feeling is an inseparable part of its being-ontological makeup at the molecular level, and both are necessary to co-create each other. Ignoring prehension (and consciousness) just leaves ontology-being for the molecule, and epistemology-consciousness is just given to humans (or higher mammals), not to all sentient beings—they only get being, not knowing. But if a human consciousness-knowing is not involved in co-creating the ontology of atoms, molecules, or cells, their own consciousness-prehension is involved, all the way down (à la Peirce and Whitehead)” (Wilber, 2012a, p. 44). So, while Wilber compares his ex-ist/subsist distinction to critical realism’s transitive/intransitive distinction, respectively, I argue that they differ in a number of important ways (beyond just IT’s panpsychism), most prominently that both Wilber’s ‘ex-ist’ and ‘subsist’ refer to realities that are both fundamentally idealistic constructions of consciousness. Subsistent realities can apparently be distinguished from ex-ist realities on a perspectival and temporal basis—they are constructions of consciousness that are perspectivally anterior to a given subject’s process of enactment in the present moment and may or may not exist for other subjects depending primarily on the developmental complexity of that subject’s consciousness. To be sure, Wilber (2006) does acknowledge the groundlessness of his scheme (i.e., no non-perspectivally enacted being anywhere), and compares this vision to a dizzying hall of mirrors: “endless reflections of a Kosmos in a hall of mirrors” (p. 266). So, rather than accepting the reality of at least one being (the observer), Wilber seems to posit instead a slippery, infinite regress of perspective-taking with no perspective-independent beings anywhere (including the so-called perceiver). Graham Harman (2011b), responding to Steven Shaviro (2011), criticizes a nearly identical orientation in Whitehead, claiming that Whitehead keeps passing off the ‘hot potato’ to the next entity, in infinite regress. Furthermore, on the issue of panpsychism, CR clearly does not reserve consciousness in the sense of prehension only for humans, but rather ascribes it to all entities in the form of various gradations of what Bhaskar calls ‘enfolded consciousness.’ Thus, to be sure, Bhaskar’s philosophy is not opposed to panpsychism.

173 To be sure, these “con-structions of consciousness” include its subsistence prior to the epistemic-hermeneutic process of enactment and ex-istence thereafter.
intransitive, ontic reality. So, for example, our knowledge (the transitive dimension) of the French Revolution is not to be confused with the French Revolution as such (the event, in the intransitive dimension). This is a key difference between CR and IT: for CR ontological questions can in principle be clearly differentiated and (fallibly) answered without being transposed into epistemological ones, whereas for IT, the former is always fused to the latter.

In short, it appears that IT is essentially saying the following: the traditional concept of knowing has now lost its cachet, since there is actually no given thing(-in-itself) or object to be known. Hence, knowing and being *implode* in the notion of enactment—knowing is co-constitutive of being, ontology and epistemology (and methodology) are mutually comprising. The claim here is that the ontological status or being of an object is brought forth through the consciousness (epistemic structures) and behaviour (methodological injunctions) of the knowing subject—the being or agent engaged in the enactment. But what then, a critical realist might ask, is the ontological status of the one who enacts? This appears to be overlooked by IT as it has been articulated to date, yet there appears to be an implicit presupposition and thus concession of the ontological existence or reality of at least one object—that is, the being engaged in the process of enactment—since in order for that being to enact anything at all, it must first exist as a real entity or object.  

Thus, IT and its post-metaphysical theory of enactment seem to necessarily presuppose the ontological existence of at least one *intransitive object*. How can the being of an object be constituted through the process of enactment, if the process of

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174 Bhaskar (1993/2008) makes essentially the same argument in Chapter 4.3. Also see Bryant (2011) for a similar argument drawing on CR’s transcendental realism. It is also worth noting that Heidegger (1962), in his existential analytic, argues convincingly that non-realism cannot get a coherent philosophy started, since it presupposes a worldless subject, and a subject can only be a subject in the world—Being can only be ‘Being-in-the-world.’
enactment is inexorably driven by—and contingent on—a being that is \textit{itself} an object? For example, when Wilber (2006) states that “[ontological] objects come into being, or are enacted, only at various developmental levels of complexity and consciousness” (p. 252), he is, at a minimum, logically presupposing at least one epistemic subject, with some level of development of consciousness, capable of employing methods to enact ontological objects. But for that claim to be intelligible, that subject must itself have some ontological status. That is, the epistemic subject (or enactive agency) must itself be an ontologically real object.

Whether considering a human or an atom, the argument holds: IT’s panpsychism (or paninteriorism) appears to be unable to help it escape the necessity of a realist position, and so must result in a \textit{TINA compromise formation}—that is to say, “an illicit conjugation of mutually inconsistent but surreptitiously complementary components” (Bhaskar, 1997, p. 142).\textsuperscript{175} To illustrate this point, I will offer an example. Again, having made the ontological status of the being of objects for humans contingent on access to them, IT then points out that different entities (e.g., quarks, atoms, molecules; cells, reptiles, mammals; humans at different stages in their psychological development) access or enact the world and its objects differently. For example, drawing on Maturana and Varela’s (1980, 1987) biological phenomenology (Zone-5 in the IMP map, discussed in Chapter 3), IT claims that a frog’s ‘view from within’ brings forth or cognizes a tree in a very different way than a human. As Wilber (2012b) states, “the frog enacts its own reality—its own epistemology and consciousness brings forth and co-creates its own ontology or world” (p. 45). Thus, within the frog’s \textit{Umwelt} (Von Uexküll, 1934/2010), the ‘tree’

\textsuperscript{175} TINA is an acronym for ‘There Is No Alternative’ that is rather ironically intended to signify a false necessity that is undermined by and must be protected against its own falsity (Bhaskar, 2016a).
is brought forth very differently, and may not even exist at all as a discrete qualitative pattern or thing. And the same would be true for an atom’s prehension of the ‘tree.’ Based on apparently Kantian presuppositions, this experiential divergence is an important basis for IT’s rejection of CR’s ontological realism. (Although CR’s realism can of course take on board that frogs construe the world from unique perspectives and causally interact with their Umwelt.) As Wilber (2012b) states,

> according to IT, the level of the ‘real’ described by CR doesn’t exist as CR describes it. Rather in IT’s view, in actuality it is either the product of both the prehensive-feeling-knowing plus holonic-being-iness of each of the holons at the particular level of the real (e.g., quarks, atoms, molecules, genetics) and their relations—all of which are tetra-enacted and tetra-evolved; and/or it is the result of the way the world emerges and is tetra-enacted at and from a particular level of consciousness-being (p. 45).

Furthermore, Wilber adds,

> these levels of being-consciousness (red, amber, orange, green, turquoise, etc.) are not different interpretations of a one, single, pregiven reality or world, but are themselves actually different worlds in deep structure (an infrared world, a red world, an amber world, an orange world, a green world, a turquoise world, etc., each of which is composed of Nature’s or Kosmic habits tetra-created by the sentient holons at those levels, as are atomic, molecular, cellular, etc., worlds) (p. 45).

In short, the being of objects has no existence or ontological status apart from the sentient holons enacting them at their own level of complexity and consciousness—and these different worldviews or umwelts enact different worlds. But in all these cases, the being of each of these holons, whether a frog, an atom, or a human, is presupposed to exist as an ontologically real entity or object. For the frog to enact the tree, the frog must first exist as a real ontological entity—and the same holds for the tree and the human in their enactment of their environment or objects in their worlds. In short, IT’s panpsychic position still must presuppose an ontic reality independent of and anterior to the epistemic process of enactment. It thus does
not escape the epistemic fallacy—it merely renders it non-anthropocentric, although for CR that would also be debatable.\textsuperscript{176}

In this way, from the vantage point of CR, in order to begin the process of enacting or knowing anything, one must presuppose some kind of philosophical ontology or metatheory $\alpha$—some kind of ‘metaphysics’ if you will. Furthermore, following Bhaskar’s powerful transcendental arguments,\textsuperscript{177} such an ontology or metaphysical proposition must presuppose the existence of an enactment-independent or intransitive world. Therefore, when Wilber claims that “post-metaphysical thinking does not rely on the existence of a pregiven world,” he appears to be unaware of the \textit{performative (self-)contradiction (performativer widerspruch)} undergirding this so-called post-metaphysical position, as an implicitly pre-given or mind-independent world is \textit{precisely} what it relies on.\textsuperscript{178} And this problem is not unique to IT, but is the inevitable outcome of any philosophy or theory that commits the epistemic fallacy, which as we can see now is indeed a \textit{fallacy} in the proper sense.

Put differently, CR might say that IT’s commitment of the epistemic fallacy condemns it to rely on an implicit ontology. As Bhaskar (1975/2008b) elucidates,

\begin{itemize}
\item \textsuperscript{176} From a critical realist point of view, it may not be convincing that IT’s panpsychism is indeed non-anthropocentric, since the consciousness in question is ‘proto’ human, and therefore is still human-centred. Moreover, to commit the epistemic fallacy is itself an (anthropic) function of human reason—which is to say, it is anthropomorphic and anthropocentric.
\item \textsuperscript{177} Principally, Bhaskar’s transcendental arguments take the form of presuppositional reasoning and retrodaction.
\item \textsuperscript{178} IT’s post-metaphysics can be said to commit a performative (self-)contradiction in the sense that in the act of stating its central argument, the propositional content of the statement contradicts the implicit claims or presuppositions of its assertion (Habermas, 1990). Bhaskar (1993/2008) makes a similar argument with respect to the central problematic of irrealist philosophies in \textit{Dialectic: The Pulse of Freedom}, Chapter 4.3, which he refers to as a “self-referential paradox.”
\end{itemize}
The metaphysical mistake the analysis of experimental episodes pinpoints, viz. the epistemic fallacy, involves the denial of the possibility of a philosophical ontology. But if transcendental realism is correct, and ontology cannot in fact be reduced to epistemology, then denying the possibility of an ontology merely results in the generation of an implicit ontology and an implicit realism. In the empirical realist tradition the epistemic fallacy thus covers or disguises an ontology based on the category of experience, and a realism based on the presumed characteristics of the objects of experience, viz. atomistic events, and their relations, viz. constant conjunctions (pp. 39–40).

Thus, it is precisely IT’s implicit philosophical ontology and implicit realism, because it has not been sufficiently justified and thereby sidesteps its own demands for methodological and epistemic transparency, that obscures its ability to self-reflexively situate and coherently sustain itself—its post-metaphysical commitments are thus necessarily metaphysical commitments. Without an explicit and procedurally transparent (and hence, post-metaphysical) philosophical ontology, the internal logic of IT’s own post-metaphysics inexorably eclipses itself, thereby unconsciously “scrambling back behind Kant’s transcendental dialectic,” to borrow a phrase from Habermas (1996, p. 28), and to some extent succumbs to the very pre-critical position that it sought to depart from. As such, IT’s own internal commitments logically lead it towards the incorporation of a procedurally rational ontological foundation, like that of CR’s transcendental realism.

Furthermore, as Bhaskar explicates in the above passage, the epistemic fallacy has its roots in the tradition of empirical realism, which is closely connected to logical positivism and its verificationism. Bhaskar (1975/2008b) goes on to explain that:

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179 While one could argue that much of Wilber’s speculation and argumentation is in the form of a Habermasian ‘reconstructive science,’ which in principle bears some strong methodological resemblances to that of transcendental argument and could therefore be considered to possess a procedural rationality, in practice the epistemic self-reflexivity and transparency necessary to substantiate such a claim appears to be lacking, as theorists such as M. G. Edwards (2010) have pointed out.
The logical positivists committed it [the epistemic fallacy] when arguing, in the spirit of Hume, that if a proposition was not empirically verifiable (or falsifiable) or a tautology, it was meaningless. Verificationism indeed may be regarded as a particular form of the epistemic fallacy, in which the meaning of a proposition about reality (which cannot be designated ‘empirical’) is confused with our grounds, which may or may not be empirical, for holding it (p. 37).

This logical positivist verificationism bears a striking resemblance to IT’s post-metaphysical dictum, “the meaning of a statement is the injunction of its enactment [...] No injunction, no enactment, no meaning,”\(^{180}\) which implies that without specification and disclosure of the methodological conditions of a statement about reality, it is considered to be meaningless (Wilber, 2006, p. 268). Thus, in the light of CR, IT’s post-metaphysical approach can be seen, at least with respect to ontology, as a kind of empirical verificationism marred by the epistemic fallacy and unable to intelligibly sustain its own ontological and epistemological commitments.

Furthermore, the epistemic fallacy is rooted in actualism—the reduction of underlying mechanisms to events or patterns of events. Thus, without adopting a critical realist stratified

\(^{180}\) In many ways, Wilber’s (2006) articulation of integral post-metaphysics seems to amount to a kind of expanded or ‘broad’ empirical verificationism in which the self-reflexive and transparent disclosure of the positionality of the researcher (i.e., the ‘means’ of enactment) is theoretically paramount. Wilber calls the positionality ‘Kosmic address,’ and states that at a minimum it should include the specification of key epistemic structures and methodological injunctions employed by an author in make an ontic claim. According to Wilber “metaphysics from an AQAL [integral theory] perspective means anything that does not (or cannot) generally specify the quadrant, level, line, state, and type of an occasion. If a writer does not specify those components—that is, if some version of a Kosmic address is not specified—it is virtually always because that writer is unconsciously assuming that those components are pregiven and thus don’t need to be specified [...] So they present their maps of reality as if there is a pregiven reality and they have the correct representation of it. That is horrid metaphysics even according to the postmodern definition of metaphysics!” (p. 257). Wilber continues: “But I am going a step further and claiming that even the postmodernists who claim to overcome metaphysics are actually caught in subtler versions of it, because metaphysics is anything that does not self-consciously disclose all of the AQAL components of any occasion. When a writer does not disclose those components it is almost always because he or she doesn’t know they are there; and not knowing they are there, cannot stop those realities from unconsciously slipping into extensive versions of the myth of the given” (p. 257). However, Wilber’s only reflexive disclosure of his positionality in Integral Spirituality was (jokingly?) as follows: “say, in a cognitive 3rd-person stance by a male (let’s be generous and say that I am) at an ultraviolet altitude in line/cognitive [...]” (p. 266). Accordingly, it seems that some integralists (in this case Wilber) “who claim to overcome metaphysics” by evoking the rhetoric of postmetaphysics, yet “do not self-consciously disclose all of the AQAL components of any occasion [...] are actually caught in subtler versions of it.” But as I am attempting to show in this chapter, failure to disclose one’s epistemic positionality is not only a subtler version of metaphysics that post-metaphysics can find itself caught in; far more consequential, in my view, is when post-metaphysics attempts to deny its dependence on a philosophical ontology, thereby implicitly committing itself to a form of pre-critical metaphysics.
depth-ontology to avoid such a reduction of the real to the actual (i.e., actualism), post-metaphysical enactivism might therefore better be understood as a kind of metaphysical (en)actualism. As Rutzou (2012) correctly points out, enactivism is, most precisely, a form of actualism wherein “the intransitive object is dissolved into actualised relations and perspectives” (p. 217). Vandenberghe (2022) notes, perhaps more generously, that in IT’s enactualism,

the real is not necessarily denied in its existence, but it is reduced to an actuality (‘reality’) and identified with a series of contingent events (events as experienced by some sentient, proto-conscious or conscious entity) that can neither be grasped from without, nor exist without a perspective or interior that co-creates and co-constitutes it in the act of cognition. The real is not only known, but necessarily ‘enacted’ and ‘performed’ by contingent acts of knowledge (p. 10).

This reduction of the real in the sense of non-actualized causal forces, dispositions, tendencies, structures, or mechanisms to actualized events, relations, and perspectives is a kind of flattening of the ontological stratification and differentiation that CR transcendentally reproduces. From a CR perspective, however, IT’s interest in formulating a post-critical, post-postmodern metatheory need not inevitably lead to a neo-Kantian, subject-centred (strong) constructivism (and thus an entanglement in the epistemic fallacy and (en)actualism). As Bhaskar’s work highlights, the use of transcendental argumentation is a transparent philosophical methodology that, I argue, meets the demands of procedural rationality (the key criterion, or even sine qua non, of a post-metaphysical approach) and thus constitutes the key pathway to a post-critical revindication of an ontological realism that is not committed (implicitly or explicitly) to the epistemic fallacy and an actualist ontology. It is a

\[181\] Wilber (2006), however, sees the neo-Kantian approach as the only viable philosophical pathway in our contemporary context: “critical (Kantian) philosophy replaced metaphysics (or ontological objects) with epistemology (or structures in the subject), and this general move is unavoidable in the post/modern world” (p. 271, emphasis added).
methodologically sophisticated approach to forging a realist ontology that, in effect, sublates the essential epistemic advances of neo- and post-Kantian philosophy, without succumbing to performative contradiction or tautology. It may therefore, in practice, be more ‘post-metaphysical’ in relation to integral theory’s implicit realist ontology on the one hand, and ‘minimalist metaphysics’ on the other, which remain procedurally opaque and lacking adequate justification vis-à-vis the mandates of its own post-metaphysical position. On these grounds one could convincingly refer to CR’s ontology and epistemology as a ‘post-postmetaphysical’ philosophy or metatheory.\textsuperscript{182}

Moreover, as CR implicitly highlights, transcendental argumentation is a method of knowing that is not included in IT’s meta-methodological map (i.e., IMP), which claims to account for all the major categories of human knowing. While one might speculate with respect to if and where transcendental argumentation might fit in the context of IMP’s categories, as we can see by way of Bhaskar’s theory, transcendental argumentation can be considered an \textit{a priori} method for philosophical underlabouring and garnering knowledge of the basic status and categorical structure of reality—and at present, it has no clear place in IT’s meta-methodological map. This raises the issue of what other important methods may be left out of the IMP map at present, along with the issue of the precise placement of various philosophical methods. Some scholars may suggest that the philosophical method of transcendental argument may be a Zone-1 method in combination with a Zone-6 focus, following Wilber’s claim that mathematics and logic are associated with the ‘eye of mind’ in his ‘three eyes’

\textsuperscript{182} Also see Hartwig (2016, p. 255).
scheme (the other two being the ‘the eye of flesh’ and ‘the eye of spirit’) and thus are fundamentally a facet of subjective mental experience, or introspection (i.e., Zone-1). However, I argue that since transcendental argumentation is a (relative and conditional) a priori philosophical method (that is, it refers to that which is prior to the subjective experience associated with Zone-1), such a valid placement in the IMP map seems questionable. In my view, IMP, as it has been expounded to date, is a map of the a posteriori scientific methodologies of human knowing. Such an understanding points to the possibility of developing philosophical methodological pluralism to complement its scientifically oriented methodological pluralism. That is, a comprehensive integrative metatheory 2.0 would include both a map of the methodologies and methods associated not only with metatheory β (science), but also metatheory α (philosophy). Such a development might lead to a more comprehensive articulation of IMP. Thus, I am not only trying to criticize IMP for omitting transcendental argument, but rather highlighting the potential for developing a more comprehensive taxonomy of methods, more consistent with its own principle of non-exclusion (Wilber, 2003, 2006), that includes a priori philosophical methods such as transcendental argument and related methods (e.g., retroduction, abduction, transcendental refutation, etc.).

In short, from a CR vantage point, IT’s attempt to jettison pre-critical metaphysics and arrive at an integral post-metaphysical position has not been entirely successful and appears to be entangled in a number of intractable philosophical problem fields (constituted by a number of contradictions, aporias, absences), including its reliance on an implicit realist ontology it cannot self-reflexively account for. If a metatheorist or philosopher does not develop an explicit
ontology, (s)he has not escaped the transcendental necessity of ontology; rather, the logic of Bhaskar’s transcendental analysis clearly concludes that their work will implicitly or tacitly produce one.\textsuperscript{183} This implicitly secreted ontology, because it has not been systematically and comprehensively considered, will, without a doubt, be rife with contradictions and confusions that necessitate compromise formations and ‘patches.’\textsuperscript{184} To be sure, such problems are not merely academic, but rather amount to a fragmentation or split between theory and practice that results in emergent errors and illusions that translate into unintended consequences and problems in practice (Bhaskar, 2002c).

These problem fields and contradictions run deep, revealing penetrating ruptures in IT’s ontological and epistemic architectonics which, I argue, cannot be resolved with surface-level metatheoretical ‘patches’ akin to the late Ptolemaic philosophers adding more and more complicated epicycles in attempts to resolve the anomalies and antinomies intrinsic to the geocentric worldview, while circumventing any negative transfiguration at a root level. Wilber’s responses to critical realism and its critiques, I would argue, are arguably attempts at theoretical patching. As such, without a serious rethinking of the ontological and epistemic foundations of IT’s metatheoretical edifice, specifically the irrealism and actualism of its enactivism, IT is at risk of collapse under the weight of its own internal contradictions.

\textsuperscript{183} In addition to Bhaskar’s transcendental arguments establishing the inexorability of ontological realism, Kenneth R. Westphal’s (2004) book, \textit{Kant’s Transcendental Proof of Realism}, argues that the precepts, methods, and arguments that Kant himself deploys, when followed to their logical conclusions, refute the fundamental basis of Kant’s transcendental idealism, whilst signalling toward the necessity of a broadly critical realist ontology or transcendental realist species of scientific realism. Also see Morgan (2005) for a critical realist review of Westphal’s book.

\textsuperscript{184} See Nunez (2013) for the notion of ‘patch’ and ‘patching’ in relation to TINA compromise formations.
absences, and aporias. As Hartwig (2015) writes with regard to these theoretical and rational contradictions, which are the basis of demi-reality and related social pathologies in practice,

we keep patching our theories to try to hide the contradictions and end up prisoners of a vast meshwork of false or inadequate (irrealist) theories and social practices of our own making that act as constraints on our capacities for free flourishing and perpetuate our enslavement (p. 232).

I therefore argue that the absence of a transcendental realist ontology and epistemology leads IT to inexorable contradictions that may only be remedied by its adoption, which implies a deep transformation in which much needs to be shed and rethought. However, Wilber’s IT tends toward a kind of grand Hegelian ontological monovalence in which absence, negation, and negative transfiguration are underemphasized and undertheorized. In line with the principle of non-exclusion, often operationalized in the catch phrase ‘everyone is right,’ Wilber tends toward a related disposition of preservative synthesis, making ‘orienting generalizations’ to integrate the findings of whole fields doing research via different paradigms. However, there are often incommensurable elements (contradictions, absences, distortions, etc.) in a given theory or metatheory. This quickly opens up complex issues related to judgemental rationality, validity criteria for adjudication, and realist assessments of truth.

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185 The orthodox practitioners of IT tend to reject such a deep and non-preservation transformation, as it calls much into question and in some ways may even contradict a desire to parsimoniously interpret the theoretical development of IT in a unilinear progression of preservative synthesis à la Hegel—from Wilber-1 to Wilber-5. On the other hand, the orthodox critical realists tend to be uninterested in the meeting of CR and a transfigured IT, assuming perhaps that IT is “a poisoned chalice” (Rutzou, 2012, 2014) that cannot be salvaged and that the dialogue with IT does not reveal any important absences or contradictions in CR which insights from IT might help absent or resolve. I, of course, would disagree with such views and argue that the revelation of deep problems in IT’s architectonics do not preclude it from revealing and redressing absences in CR on the way to a non-preservation synthesis in a visionary realism. The path of non-preservation synthesis of the two metatheories seems to be reserved for the daring, heterodox practitioners willing to risk some degree of alienation from the orthodoxy of both metatheoretical streams. For me, such a risk does not feel so much like a choice, but the natural result of a commitment to following the thread of truth (however fallibly) and the quest for the intellectual resources that can truly be of transformative impact for a world in deep metacrisis.

186 In the historical stream of integral philosophy, Sri Aurobindo’s (1949/1990) integral yoga philosophy more explicitly considers the negative dimension of integrative knowledge: “the integral knowledge admits valid truths of all views of existence, valid in their own field, but it seeks to get rid of their limitations and negations and to
While Wilber (2012a, 2012b) claims that IT does not commit the epistemic fallacy, I have made a clear case in this chapter to the contrary. Without a stratified ontology that distinguishes the real, the actual, and the empirical, as well as the intransitive and transitive dimensions, it is likely that it will continue to succumb to the epistemic fallacy—to be stuck in the ‘correlationist circle,’ as the speculative realists would call it (see e.g., Meillassoux, 2008)—and to champion irrealist ontology. It is not enough to be formally critical of irrealist and radical constructivist philosophies, while implicitly subscribing to the same flat, Humean ontology and neo-Kantian epistemology that undergirds them. As an analogue to Einstein’s paraphrased proclamation that ‘no problem can be solved by the same level of consciousness that created it,’ I would wager that no deep-seated philosophical or social problem can be solved from the same ontology and epistemology that created it. If we want to be able to truly critique the problematics of modern positivism and postmodern social constructivism, then we will need to break with those philosophies on a root level and no longer tacitly align ourselves with the same foundational (flatland) ontology and constructivist epistemology upon which those philosophies rest. IT, therefore, needs to rethink its ontological and epistemological foundations such that they can be rationally and self-reflexively sustained.

harmonize and reconcile the partial truths in a larger truth which fulfils all the many sides of our being in the one omnipresent Existence” (pp. 692-693). As such, Aurobindo seems to tend towards a kind of ontological bivalence wherein absence and negativity are implied. Wilber, while clearly drawing substantially from Aurobindo, seems to have largely omitted the negative dimension of integrative knowledge, as underscored in integral yoga philosophy, and tends towards an ontological monovalence, perhaps due to considerations of postmodern social constructivist trends in contemporary philosophy.
This failure in self-reflexivity, or theory–practice integration, has implications for IT’s ‘seriousness’ in the Hegelian sense of practical efficacy. Seriousness, in critical realism, is a metaphor derived from G. W. F. Hegel, denoting the practical implications of theory–practice consistency or lack thereof. A ‘serious’ philosopher is prepared to ‘walk the talk’—prepared to act on their philosophy and demonstrate its efficaciousness in real-world praxis. Deeply interrelated with philosophical (self-)reflexivity, or the ability of a philosophy to sustain a coherent account of itself, which Bhaskar (2002/2012b) invokes as the supreme criterion of philosophy (or metatheory generally), seriousness can be understood as theory–practice integration in the efficacy of practice. Bhaskar notes that philosophical metatheory has produced an abundance of ‘unserious’ theories that the philosopher themselves would never act on. For example, David Hume claimed that there is no better argument for destroying his little finger than for destroying the whole world—a doctrine that would later be enshrined as ‘Hume’s Law’ (Bhaskar, 2002/2012b, p. 178). But clearly, given a forced-choice dilemma between the destruction of his little finger and the whole world, Hume would—in practice—choose to have his little finger destroyed every time, since his little finger is, of course, part of the world (and would therefore obviously be destroyed along with it). Critical realism, in contrast to Hume and the entire tradition of irrealist philosophy, takes seriousness seriously, noting it as one of its core features and validity criteria. Integral theory, while aiming for the ideal of theory–practice integration, clearly misses the mark with respect to key ontological and epistemic considerations. For example, integral theory, applying its developmental enactivism, which proposes that various phenomena exist only when enacted via subjects at particular levels of developmental complexity in its epistemic taxonomy, claims that “global holarchical
ecosystems” only exist in the “worldspace” of the turquoise developmental level (Wilber, 2006, p. 260; Esbjörn-Hargens & Zimmerman, 2009, p. 177). Therefore, the global ecology (and its current state of crisis), is an enacted phenomenon that only exists for human subjects at a turquoise level of psychological development. “One of the implications of this approach,” write Esbjörn-Hargens and Zimmerman (2009), “is that we cannot say that ecosystems existed 50,000 years ago. Why? Because even if humans occupied a magenta or red level of development, they (like any other sentient being) could not conceive of ecosystems; hence, they could not perceive (i.e., enact) them” (p. 178). Not to worry, the authors go on, because “Wilber asserts that this post-metaphysical stance neither slips into subjective idealism nor prevents us from talking meaningfully about something like ecosystems in prehistory. The rejection of the myth of the given still allows us to describe ‘intrinsic features’ of sensory experience” wherein ecosystems indeed subsisted as intrinsic (viz., interpretive and con-structed) features (of a turquoise mind or ‘worldspace’) yet to be cognized and enacted by human subjects (Esbjörn-Hargens & Zimmerman, 2009, p. 179). “Thus global holarchical ecosystems do not exist in any worldspace below turquoise and cannot be found anywhere in their less than turquoise phenomenology. Real objects are not seen from a perspective—they are within that perspective!” (p. 179). But for critical realism, Bhaskar (2016a) writes, “our world came into existence long before human beings and [...] it or the cosmos, which is after all being, will survive our species, human being. Moreover, we know—it is a condition for the possibility of science—that the laws of nature to which we are subject, exist and operate quite independently of our activities” (p. 201). Furthermore, as the speculative realist Quentin Meillassoux (2008) has compellingly argued, it is absurd to believe, as the Kantian line of
“correlationist” philosophy would have it, that the truth embedded in an arche-fossil, disclosing its own pre-human, pre-historic existence, could in some way be negated due to the fact that there were no human subjects, with their developmental worldviews, to observe it. Without adhering to the myth of the given, realism (speculative and critical) can definitively affirm the existence of pre-historic ecosystems—not to mention our global ecosystem in its present state of concatenated socio-ecological crisis. It seems clearly absurd and profoundly unserious that one would presently argue in the public sphere, for example, that ecosystems don’t exist independent of human consciousness, but they do subsist, which is to say, they are constructions of highly developed human minds. While clearly well-intentioned, the theoretical contradictions of this constructivist sophistry lack practical efficacy and seriousness.

If we truly appreciate the causal efficacy of ideas as real generative mechanisms (see e.g., Bhaskar, 1997), then we can begin to understand that fighting the ills of positivism and its cognate social formations, for example with an implicitly flat, positivist ontology, is not only a performative self-contradiction and failure of self-reflexivity on the level of theory, it will also tend to (unwittingly) reproduce and reinforce the same core problematics and aetiologies it is attempting to eschew in practice. Avoiding an acknowledgment of foundational, architectonic contradictions, absences, and aporias in one’s metatheory, as Wilber appears to be doing with IT, while pursuing a strategy of paralogistic ‘patching,’ “merely postpones eventual disintegration as the reality principle (alethic truth) asserts itself,” revealing the aspects of our metatheories that are out of resonance with the real (Hartwig, 2015, p. 232). Taken together, the arguments made in reading IT through the lens of CR arguably forge a penetrating critique
of IT on the root level of ontology and epistemology, with specific reference to IT’s lack of an explicit realist depth ontology and concomitant irrealist fusion of ontology and epistemology. It seems clear that IT’s present ontological and epistemological formulations generate a number of problematics and problem fields—from the epistemic fallacy to actualism to verificationism to a lack of philosophical reflexivity and unseriousness—that cannot be resolved through patching, sleight of hand, or analogous forms of complicated and laborious philosophical manoeuvring.

Thus, the critique I have articulated in this section is arguably tantamount to what Bhaskar (1979/2015) calls a “transcendental refutation” (p. 120) of IT’s ontology and epistemology, wherein what is presupposed in practice (viz., an ontologically real world) is denied in theory. In contrast to transcendental arguments, which start with given practices and attempt to rationally reconstruct—and bring conceptual clarity and coherence to—theory, transcendental refutation is a form of critique that is tasked with the analysis of what is given or presupposed in practice yet is denied or reflexively incoherent in theory. According to Bhaskar (1979/2015), a “transcendental refutation can be obtained,” relative to an account of science/knowledge, “if it can be shown to be inconsistent with the possibility of science, or of certain generally recognized scientific activities” (p. 120). Drawing on Bhaskar’s transcendental analysis of the necessary conditions for the possibility of science, we can see that science is only possible and intelligible under the conditions of a realist depth ontology denoting an open-systemic world, antecedent to and distinct from our epistemic representations of it—that is, a world that is structured, differentiated, and changing. A stratified depth ontology with a fallibilist
epistemology is, in short, the necessary condition for science. Integral theory’s account cannot sustain a realist depth ontology and fallibilist epistemology in theory, while it is arguably presupposed in practice. Thus, IT in its currently irrealist formulation is theoretically inconsistent with the possibility of science and related epistemic activities. As such, my assessment of integral theory, drawing on Bhaskar’s transcendental realist analysis, effectively constitutes a transcendental refutation. That said, on the level of scientific ontology, notably its taxonomy of epistemic structures, integral theory offers valuable and far-reaching resources that could be taken up in a non-preservation sublation of the two metatheories in a visionary realism.

Critical Realism in the Light of Integral Theory

When examined in the light of IT, it could be argued that CR, given its lack of an adequate epistemic taxonomy, is not sufficiently nuanced and careful in its consideration of the epistemic categories that it uses to describe the world—and at a meta-level, of reflexivity, its own epistemic theorizing about it. While CR appears to have a solid ontological foundation and epistemology (in the sense of a formal philosophical theory with which to generally and categorically justify how humans acquire/produce knowledge), from the perspective of IT, CR has not paid sufficient attention to the variety of epistemic structures through which the world is known substantively, as well as the problem of epistemological self-consciousness in the sciences. CR’s epistemology is thus generally valid, but without further detailed and concrete articulation of the conditions for the possibility of knowing various kinds of intransitive objects, it lacks nuance, reflexivity, and practical efficacy with respect to various practical problems,
especially that of inter-individual epistemic-hermeneutic variability—that is to say, conflicts of perspective, worldview, and sensemaking in the public sphere.

At an early stage in the CR-IT dialogues (symposium 1), it was suggested by some integral theorists that CR, in the manner of a neat Hegelian symmetry vis-à-vis IT, commits an *ontic fallacy* in the general sense of an insufficient consideration of its epistemic categories and an alleged (over)emphasis on ontology. In a proper sense, nevertheless, the ontic fallacy can be said to refer to a reduction of epistemology to ontology wherein knowledge is conceptualized as a direct or unmediated representation of being by a disengaged subject in which the psychological, cultural, historical, linguistic, and social mechanisms through which knowledge is construed vis-à-vis antecedent knowledge are either denied or ignored (in short, the naïve realism prominent in the early to mid-eighteenth century during the European Enlightenment).

It is important to note, however, that for CR, the ontic fallacy follows closely from, and indeed implies, the epistemic fallacy—much like modernity’s paradoxical marriage of the philosophy of the (disengaged) subject (Habermas, 1987/2000) with the philosophy of the (flatland) object in the representation/reflection paradigm (Wilber, 1995). As Hartwig (2007) puts it, “the epistemic (together with its logicising variant) and ontic fallacies are dialectical counterparts or duals which, while apparent antagonists, in reality mutually presuppose and support each other” (p. 174). Indeed, “[t]o be a fallibilist about knowledge,” Bhaskar (1975/2008b) writes, “it is necessary to be a realist about things. Conversely, to be a sceptic about things is to be a dogmatist about knowledge” (p. 43). Thus, for CR to commit the ontic fallacy, according to its own definitions, it would also have to commit the epistemic fallacy, which it obviously does not.
Clearly, given CR’s concept of the transitive dimension and fallibilistic epistemology that acknowledges the principle of epistemic relativity (e.g., that knowledge is always already situated within a geo-historical trajectory and is socially and linguistically mediated), CR does \textit{not} commit an ontic fallacy in any proper sense. However, viewed from the vantage point of IT’s robust taxonomy of epistemic structures and its appreciation of the profound importance of the transitive-hermeneutic dimension of knowledge production, CR, I argue, may run the risk of unknowingly hypostatizing various subjective and intersubjective phenomena, thus potentially transposing various epistemic elements into ontological elements in an insufficiently critical manner. That is, while CR does not commit the ontic fallacy, it is fair to say that it emphasizes ontology over epistemology and its epistemology is relatively less developed.

Moreover, CR appears to be somewhat deficient in terms of providing a detailed account of the various distinct epistemic structures or categories that explain and shape (the transitive dimension of) knowledge production in our contemporary world—that is, it does not have an adequate explanatory taxonomy of the different specific structures or patterning undergirding the widespread phenomenon of incommensurable perspectives or inter-individual epistemic-hermeneutic variability (e.g., \textit{vis-à-vis} the interwoven ontological, epistemological, methodological, axiological, anthropological, and societal visionary orientations, or worldviews that individuals inhabit) (De Witt & Hedlund, 2017; De Witt et al., 2015; A. Hedlund-de Witt, 2013b; A. Hedlund-de Witt & N. Hedlund-de Witt, 2013). While CR does have a model that accounts for certain abstract and transcendental aspects of inter-individual epistemic-
hermeneutic variability (presumably referring to formal operational and post-formal operational adults), and analyzes these as necessary for communication (Bhaskar, 1979/2015, pp. 152-158), to date it lacks a richly differentiated, substantive, and empirically grounded model of the structures and mechanisms that generate such variability. This is, of course, critically important for resolving disagreements in the public sphere and taking effective action in the face of the metacrisis.

In contrast, integral theory has this very kind of rich and nuanced taxonomy of such myriad epistemic structures, which can be understood to represent an important second-order scientific ontology of the categories of human knowing. Incorporating it could strengthen CR’s theory of the substantive psychological and cultural mechanisms that help to condition knowledge, and successfully be integrated with its compelling first-order philosophical ontology. A philosophical ontology delineates the most abstract, general categorical features and forms of the world, which science and other social activities presuppose. A scientific ontology, on the other hand, discloses the specific or particular contents or textures of the world established by substantive, first-order scientific theory. It is one thing to have a metatheory generally and abstractly positing the psychological, cultural, and social elements that help to condition human knowing—it is quite another to have a detailed metatheory (like integral theory) that specifies them in concrete detail as substantive, diachronically interrelated mechanisms, grounded in a far-reaching synthesis of scientific evidence.
Moreover, given CR’s commitment to *epistemic relativism* (that is, the principle that all knowledge is socially produced, and thus transient and fallible, and is conditioned by a geohistorically determined epistemic framework), the concept of *developing integrative pluralism* (that is, incorporating the findings of valid empirical inquiry in the form of an evolving scientific ontology), and the notion of the *critical realist embrace*\(^{187}\) (the commitment to embracing the whole of valid knowledge, including insights from other theories and metatheories), CR’s own internal commitments lead it toward the incorporation of a broader taxonomy of epistemic categories like that of IT (Bhaskar, 1986/2009). Speaking to such commitments, critical realism, Bhaskar (2002/2012b) writes,

> remedies incompleteness’ in its own discourse itself, that is in its previous phases: thus critical realism is a process of development in thought which builds ever more complete and rounded totalities, continually self-critical in a process of self-transcendence without any conceivable or a priori positable end. This duplex dialectical process means that critical realism always consists in a double immanent critique—of the external manifold of received theory, and of its own dialectical past (pp. 178–179).

Clearly an immanent critique of critical realism impels it to remedy its own incompleteness by incorporating IT’s metatheoretical taxonomy of epistemic structures. Of course, it should be noted that IT obviously does not have a monopoly on developmental psychology and the epistemic skills and structures it describes. For those critical realists (or other metatheorists) who do not find the move towards integrating IT’s epistemic taxonomy compelling, I would, at the least, hope that my discussion stimulates some interest in developmental-structural psychology and the ways in which it may help CR address some of its potential epistemological problems and/or develop into a more complete and serious emancipatory metatheory that can move beyond the post-truth culture wars and support epistemic coherence, memetic

\(^{187}\) See Bhaskar et al. (2018, p. 82).
mediation, and shared agreement with respect to taking action to address the metacrisis. Along these lines, a closer look at the epistemological implications of developmental-structural psychology, notably the work of Piaget, is therefore warranted. That said, I argue, along with Stein (2022) and others, that there are significant advantages to considering integral theory as a metapsychology, rather than merely a invocation of individual developmental-structural psychologists, since integral theory not only collates over 100 developmental models, but also provides a coherent overarching metatheoretical model or ‘integral psychology’ (Wilber, 2000a). Wilber’s integral psychology codes and draws out key themes and psychological structures that cut across various models, including distinct ‘lines’ or multiple intelligences (Gardner, 1999) and their systematic interrelationships, the relationship between developmental levels and lines, and psycho-spiritual states (Wilber, 2006; Wilber et al., 1986). This complexity and nuance arguably increases the clarity and validity of key developmental claims, making it unequivocally the most philosophically sophisticated advancement of developmental studies to date, as Stein (2022) and others argue.

Following Kant’s (1791/1998) general proposition that there are categories and structures of the mind that are a priori necessary for the cognition of objects to be possible, IT underscores the extent to which our psychological-cognitive structures mediate and profoundly shape our knowledge of the world, not to mention the various neuro-biological, cultural, and social structures. As mentioned above, IT’s epistemology is deeply informed by the contemporary scientific work of the integrative metatheorist Jean Piaget (1896–1980) and the neo-Piagetian school of developmental-structuralism, who have empirically illumined (or retroduced) the
conditions for the possibility of various cognitive events, designating numerous epistemic structures, or the fundamental generative mechanisms necessarily undergirding them. Thus, as Piaget (1971a, 1971b, 1972) arguably implied in his discussions of philosophical epistemology, the developmental structures of cognition he (and many others in his wake) identified, honed, and advanced through substantive empirical enquiry are essentially more nuanced, sophisticated, and empirically grounded analogues of Kant’s synthetic a priori structures of the understanding or mind. Hence, they can be conceptualized as neo-Kantian structures in the specific sense of invisible/interior causal structures in the real domain of mind identified a posteriori.¹⁸⁸

While CR concedes that knowledge is indeed transitive, situated within a geo-historical trajectory and social context, and thus fallible, when compared to IT, it seems to largely overlook such neo-Kantian/neo-Piagetian epistemic structures of consciousness that are so deeply implicated in the production of substantive knowledge. These structures, I argue, cannot be written off simply on the basis of a critique of (neo-)Kantian irrealism. The evidence presented in the neo-Piagetian literature makes it abundantly clear that these structures are causally efficacious with respect to how humans construe the world, and therefore cannot be curtly cast aside as relics of a neo-Kantian epistemic fallacy. It is indeed possible, I propose, that such neo-Kantian/neo-Piagetian structures can be coherently rethought and construed in a transcendental realist or critical naturalist manner. CR already acknowledges the existence of categories (e.g., space, time, and causality) and structures, situating them not as (transitive)

¹⁸⁸ Paul Marshall (2012c) also makes a similar point in his excellent article “Toward an Integral Realism: Part 1: An Overview of Transcendental Realist Ontology.”
epistemic impositions on the world by the subjective human mind (as Kant would have it), but as having real reference in the (intransitive) world. In Bhaskar’s writings he stresses that the Kantian categories (and structures) are in the world (categorial realism).

What I am suggesting in the context of a CRIT, however, is that the neo-Kantian/neo-Piagetian structures are both in the world and in the human mind. This proposition appears to be commensurable with CR’s categorial realism as it in no way is implying that the neo-Kantian categories and structures are mere subjective impositions, but rather that they mediate accurate renderings of intransitive objects. However, these categories and structures, part and parcel of an intransitive ontological world, and when inhabited and employed in the context of inquiry, are also transitive epistemic structures that fashion our construal of that intransitive world, as ontology necessarily precedes and constellationally contains or enfolds epistemology. This means that knowing subjects and their epistemic structures are part of the world, part of ontology. Kant’s (1791/1998) central points in his Critique of Pure Reason—that we cannot have access to and therefore knowledge of the noumenon or thing-in-itself (ding an sich), and that knowledge of things is merely an appearance structured by subjectivity and synthetic a priori structures and categories of the mind—laid the groundwork for the reification of a deeply schizoid relation between the subjective mind and the objective world. But “it is not at all clear,” Bhaskar and Danermark (2006) write, “how we could have knowledge of the categories unless we could have knowledge of things in themselves” (p. 6). Following this logic, I argue that through transcendental methods, we can have apodictic knowledge of the things in
themselves, at least on an abstract and general level, and amongst them are the structures and categories of the mind.

Thus, critical realism and visionary realism rejects (neo-)Kantian ‘categorial irrealism’ while embracing a categorial realism, allowing it, in principle, to include the Kantian categories and structures while jettisoning their status as unreal subjective impositions of the mind. However, the neo-Kantian structures (e.g., those disclosed by Piaget and his followers) do exist as structures necessary for disclosing aspects of the world—they are, on the one hand, structures in the transitive dimension that refer to real entities in the intransitive dimension. Concomitantly, since these neo-Kantian categories and structures are clearly causally efficacious generative mechanisms in the real domain of consciousness, they are themselves, by definition, constitutive objects of the (intransitive) world. Categories (and structures), “if valid, are constitutive of reality as such, irrespective of their categorization by observers or thought” (Bhaskar, 1997, pp. 140-141). In other words, in contrast to Kant’s somewhat siloed notion of the “transcendental subject,” the knowing subject is also a real object within the world—an integral facet and expression of it—not standing outside the world somehow ‘looking in.’ Kant is an idealist and empirical realist for whom the mind creates or constructs the empirical world, which, he maintains, is all that can be known. This stands in contrast with naïve realism, wherein the world creates the mind, and the mind somehow stands apart from the world, attempting to objectively mirror it (as in the representation/reflection paradigm and its correspondence theory of truth (Wilber, 1995)). A visionary realist position, in contrast, attempts to sublate these poles into a dialectical third way (or tertium quid) wherein world and
mind co-exist in an asymmetrical union, where the world constellationally contains and therefore includes the mind as a differentiated and integrated facet of it.

This realist reading of the neo-Kantian/neo-Piagetian structures is a crucial emergent feature of a visionary realist non-preservative synthesis. Integral theory’s epistemic taxonomy is centred around the notion or ‘element’ in the AQAL/integral model of levels, which according to IT is ‘enacted’ via the methodology of structuralism (Zone-2) in its integral methodological pluralism (Wilber, 2003, 2006). This element of integral theory is profoundly indebted to the work of Jean Piaget, who, perhaps more than anyone, pioneered the field of developmental-structuralism, which is the primary basis for integral theory’s notion of levels (also referred to as stages, structures, or waves) in the modern axiomatic-scientific sense.

Often dubbed merely as a child developmental psychologist, Piaget can more appropriately be described as an integrative metatheorist working at the intersection of scientific (θ) and philosophical (α) metatheorizing. Piaget was therefore working in the space of integrative metatheory γ, well ahead of his time, to forge a “comprehensive explanatory framework involving developmental processes that cut across biological, psychological and epistemological perspectives” (Stein, 2016a, p. 50). I argue that Piaget was implicitly a critical or visionary realist—through and through—despite being often (mis)understood by various scholars (see e.g., Peterson, 2017), including some of his own followers, as a kind of historicized neo-Kantian.

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189 While these three disciplinary identities overlap in complex ways, I see Piaget as bridging scientific psychology (and biology) and philosophical epistemology, developing integrative metatheory γ conclusions that disclose important non-reductionist insights into the deep continuity of life and mind and our bio-psycho-social evolution as a species.
constructivist in the irrealist sense “that persons or systems constitute or construct reality” (Kegan, 1982, p. 8), without situating such claims in relation to the realist notion of ontological intransitivities or offering specification or caveats that delimit the scope of this constructivism.

Piaget developed his metatheory via an essentially transcendental retroductive (or abductive) analysis of the empirical phenomena of cognitive activities, broadly analogous to Bhaskar’s (1975/2008a) transcendental analysis of the activities of experimental natural science. More specifically, Piaget observed various epistemic events (or actions) in the context of psychological experiments (e.g., his pendulum experiment) and performed an essentially transcendental procedure wherein he retroduced the underlying conditions or causal structures in the mind for the possibility of certain empirical events (i.e., human epistemic actions or skills). According to Gardner (1981), Piaget:

> maintained that one could observe a series of actions undertaken by an organism and then extrapolate the reasoning process involved in its actions, ferret out the intellectual structure implicitly reflected in the action, even set up a logical model of what happened (p. 60).

This identification of “the intellectual structure implicitly reflected in the action” is clearly an essentially transcendental-retroductive procedure. Using this methodology, Piaget posited that human knowledge arises in the dialectic or interaction of action in relation to third-person objects in the world wherein reasoning involves implicit action and action involves implicit reasoning (Gardner, 1981).

The influence of Kant on Piaget’s thinking has been noted by numerous scholars (e.g., Hamlyn, 1978; Rotman, 1977), and Piaget’s approach clearly drew some inspiration from Kant’s principle method of transcendental argument, as well as his broad notion that subjectivity is structured.
In a methodological and epistemological sense, Piaget advanced the Kantian project of disclosing the structures of the mind that necessarily undergird the empirical phenomena of human cognitive skills embodied in concrete human actions, without marring his thought by a Kantian categorial irrealism in a philosophical sense. He explored how the mind must be structured for the cognitive events or actions he observed to be possible, yielding deep and pioneering insight into the developmental unfoldment of the fundamental cognitive-epistemic structures of the mind that have been refined and extended into the sphere of adult development by the neo-Piagetian stream of developmental structuralism centred around the Harvard Graduate School of Education. Perhaps the insight for which Piaget is most renowned is as follows:

He found that children at certain ages not only gave wrong answers to questions but also exhibited qualitatively different ways of reasoning. The young child was neither ‘dumber’ nor just a few steps behind the older one; rather, he thought about things in a wholly different way, possessing a distinctive conception of the world that was manifested in every application of his reasoning power, whatever its object, and that could be elicited through judicious questioning (Gardner, 1981, pp. 55-56).

That is, Piaget identified the fundamental cognitive basis of worldviews and their interrelationships in terms of an increasing hierarchical complexity wherein later or higher levels/stages are defined in terms of an invariant and generally irreversible sequence of qualitatively emergent, higher-order cognitive capacities to operate on, re-organize, and integrate the distinct cognitive capacities of earlier ones, such that earlier stages are the necessary condition of later ones. Let us take, for example, meta-systematic operations

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190 With notable exceptions of cognitive decline in old age and other diseases or accidents that damage the central nervous system.
(Commons et al., 1984), which refers to the capacity to disclose *holistic causality* emerging from the interaction and synergistic effects of multiple causal mechanisms across multiple nested systems. We could read this capacity to know complex, nested systems as a neo-Kantian enactive moment wherein such systems have no independent and anterior existence as a reality in the world but were brought forth through the act of knowing. Alternatively, a realist reading might argue that holistic causality and complex systems exist in the real world outside of their enactment in consciousness. As Bhaskar’s analysis of experimental science has already transcendentally retroduced that the world is a complex, open system composed of a vast multiplicity of complex and contingent conjunctions of causal forces that may or may not actualize into concrete events, which in turn may or may not be observed empirically. That is to say, he transcendentally deduces that *holistic causality* and complex nested systems exist *in the world* anterior to and independent of our knowledge of the world or development to the meta-systematic stage wherein such events can be known empirically. It is not that holistic causality and complex systems are merely conceptual impositions on the world (as the Kantian view would have it), or necessarily a co-constitutive feature of the enactive agency that brings forth their sub/objective ‘reality’—they clearly exist as an ontic or intransitive reality *in the world*, even if aspects of our knowledge of them are not separate from them. And yet, a certain structure of the mind (meta-systematic operations) is a necessary condition for holistic causality and complex systems to be disclosed in the epistemic or transitive dimension of the mind. The neo-Piagetian structures, I argue, are not simply irrealist devices of enacting onto-epistemic objects in a developmental ‘worldspace,’ but rather they are generative mechanisms

191 See Appendix Five for a definition of ‘holistic causality.’
on the level of the real that mediate accurate epistemic-hermeneutic renderings of intransitive objects, whether those objects are interior or exterior.

While CR concedes that knowledge is indeed transitive, situated within a geo-historical trajectory and social context, and thus fallible, when compared to IT, it seems to largely overlook such neo-Kantian/neo-Piagetian epistemic structures of consciousness that are so deeply implicated in the social production of substantive knowledge and the behaviours that logically flow from such knowledge. These structures, I argue, cannot be disregarded simply on the basis of a critique of (neo-)Kantian idealism or categorial irrealism. The evidence presented in the neo-Piagetian literature makes it abundantly clear that these structures are causally efficacious—and indeed, a *sine qua non*—with respect to how humans construe the world, and therefore cannot be curtly cast aside as relics of a neo-Kantian epistemic fallacy and concatenated categorial irrealism. It is indeed possible, I propose, that such neo-Kantian/neo-Piagetian structures can be coherently rethought and construed in a manner consistent with CR’s transcendental realism and critical naturalism while eschewing Kant’s categorial irrealism. Indeed, such a transfiguration is a key aspect of the visionary realist synthesis.

CR already acknowledges the existence of categories (e.g., space, time, causality, emergence, substance, etc.) and structures, situating them not as (transitive) epistemic-hermeneutic schemes or taxonomic devices that are imposed on the world by the subjective human mind (as

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192 Furthermore, in my reading of Piaget, it seems clear he was an implicit critical realist, and did not himself subscribe to a Kantian categorial irrealism, even if he is sometimes dubbed a neo-Kantian.
Kant would have it), but as having real referents in the (intransitive) world which exists antecedent to and independent of humans. In Bhaskar’s writings he stresses that the Kantian categories and structures are in the world (categorial realism), not only in the mind as Kant would have it (categorial irrealism). “Categories such as causality, substance, process, totality, agency,” writes Bhaskar (2000) “are essentially constitutive (albeit very abstract or skeletal) features of the world, defining precisely its most basic properties or ingredients” (pp. 33-34).

Bhaskar’s (1975/2008b) transcendental realism makes a compelling case that Kant’s categorial idealism erroneously located the real structures and categories of the world within the human mind. For example, Bhaskar (2000) writes: “would it not be absurd to, for example, hold that causal laws existed and acted independently of human beings but not causality or natural lawfulness?” (p. 34). Such a position, Bhaskar elaborates, “would be akin to being realist about knives, forks and spoons but not about cutlery” (p. 34). Bhaskar argues for a categorial realism wherein the categories exist in the world. According to categorial realism, the world is precategorized, being constituted by a priori categories that transcendentally exist prior to and independent of human cognition and thus categorizations of the world. Bhaskar’s move was essentially to carry out a Copernican revolution in the philosophy of science, thereby philosophically relocating the categories from within the human mind, as Kant’s categorial idealism would have it, to being within the world. It is implied, however, that with respect to the categories, Bhaskar argues for them as existing in the exterior world, rather than in the

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193 Kant himself famously claimed to have carried out a philosophical Copernican revolution. However, for Bhaskar, the signature of Copernicus’s revolutionary achievement was the anti- anthropic decentring of humanity from the cosmos. Hence, Kant’s so-called Copernican revolution was very much an inversion of the decentring, anti- anthropic essence of Copernicus’s revolution, arguably turning the tides back towards anthropocentrism and anthroporealism. One could therefore argue that Bhaskar’s transcendental realism, rather than Kant’s, has performed a Copernican revolution in the philosophy of science in the proper sense of an anti- anthropic decentring.
interior space of the mind. But as Bhaskar forcefully states in other contexts—and is clearly the thrust of his overall philosophy—the world and mind are not mutually exclusive binaries, as in ‘the ghost in the machine’ (Koestler, 1968), or the ‘bifurcation of nature’ (Whitehead, 1964), but rather exist in a kind of identity-in-difference or constellational/dialectical unity wherein the world constellationally overreaches and contains the mind. Furthermore, as Bhaskar (1997) elucidates,

[j]ideas, and ideational connections (including category mistakes, logical contradictions, etc.) are part of everything, and everything is real. To deny the reality of a part of everything (of anything), such as ideas (or say persons, or consciousness, or agency, or values—or mind, or body) extrudes or detotalizes it or them from the world, that is the rest of the world of which they are in principle causally explicable, and causally efficacious parts. This inevitably produces an implicit dualistic or split ontology (p. 139).

Thus, I am suggesting, in the context of a visionary realism, that this binary opposition can likewise be transcended in a non-preservative sublation of the Kantian and Bhaskarian positions in the form of an integral categorial realism that preserves the general proposition that the neo-Kantian/neo-Piagetian structures and categories are both in the world and in the human mind, since mind is constellationally contained within the world. This proposition appears to be commensurable with CR’s categorial realism as it in no way is implying that the neo-Kantian structures are mere subjective impositions, but rather that they refer to, express, and mediate accurate epistemic renderings of intransitive objects. In this way, the categories and structures—part and parcel of a real, intransitive ontological world—have both interior and exterior dimensions. As such, the category of causality exists as a reality in the world, prior to and independent of our knowledge about it. However, in the context of inquiry, the category of causality, in its worldly dimension, reaches across the Kantian divide, inciting (or causally impacting) the mind to develop its innate capacity to accurately refer to and express the alethic
truth of the category of causality in the world. Thus, we could say that Bhaskar is correct to say that the categories are in the world, but, I argue, he is incorrect to say that they are not in the mind. They are in the world, defined as constellationally containing the mind, thus they are in the ontological world as well as the epistemic world of the mind, serving a transdimensional unifying function in their onto-epistemic dialectics. Categories and structures are therefore primarily intransitive ontological realities (as transcendentally established by Bhaskar), while secondarily constituting transitive epistemic structures that fashion our construal of that intransitive world (as established by a negatively transfigured reading of Kant and Piaget), as ontology necessarily precedes and constellationally contains or enfolds epistemology. The levels of ontology and epistemology—viz., the intransitive and transitive dimensions—overlap in a nested manner wherein ontology>epistemology, where ‘>’ means co-includes, contains, or constellationally overreaches. This means that knowing subjects and their epistemic structures are ‘object-ive parts’ of the world—they are integral sub-/ob-jects asymmetrically enveloped by the ubiquitous ontic embrace of reality, and they cannot be reduced to only their subjective or objective dimensions. Thus, CR rejects (neo-)Kantian ‘categorial irrealism’ while embracing a categorial realism, allowing it, in principle, to include the basic notion of Kantian categories and structures—in the specific sense of extracting Kant’s general proposition that there are categories and structures of the mind that are a priori necessary for the cognition of objects—while jettisoning Kant’s irrealist and idealist tendencies to conceive of them as ideal/unreal subjective impositions of the mind and denying the possibility of their existence in the world. However, the neo-Kantian structures (i.e., those disclosed by Piaget and his successors) do exist

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194 See Appendix Five for a definition of ‘constellational containment’ or ‘constellationality.’
as (inter)subjective structures necessary for disclosing aspects of the world—they are, on the one hand, structures in the transitive dimension that refer to real entities in the intransitive dimension. Concomitantly, since these neo-Kantian categories and structures are clearly causally efficacious generative mechanisms in the real domain of consciousness, they are themselves, by definition, constitutive objects of the (intransitive) world. For Bhaskar (2000), “our epistemic categorisation is also real, but it is not what it is about, even when it is correct” (p. 34). Categories (and structures), “if valid, are constitutive of reality as such, irrespective of their categorization by observers or thought” (Bhaskar, 1997, pp. 140-141). In other words, in contrast to Kant’s somewhat schizoid notion of the “transcendental subject,” the knowing subject is also a real object within the world—an integral facet and expression of it—not standing outside the world somehow ‘looking in.’

Kant is an idealist for whom the mind objectively represents the world or reality via the synthetic a priori action of the intuitional manifold. This stands in contrast with naïve realism, wherein the world creates the impressions of the mind, and the mind somehow stands apart from the world, attempting to objectively mirror it. Critical and visionary realism, in contrast, attempts to sublate these poles into a dialectical third way (or tertium quid) wherein world and mind co-exist in an asymmetrical union—the world constellationally contains and therefore enfolds the mind as a differentiated and integrated facet of it. The mind thus participates as a particular, self-reflexive causal force in a complex open-systemic world, composed of a vast multiplicity of dynamically intersecting causal forces, of which it is seamlessly and integrally part and parcel. To be sure, the mind

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195 Charles Sander Peirce, in his later work, articulated a resonant philosophy which placed the subject back into the world, thus detranscendentalizing the subject and initiating the turn towards a postmetaphysical position (Habermas, 1992).
therefore functions along a spectrum of participation, from construal (of causally and existentially intransitive natural objects) to co-construction (of existentially intransitive yet causally interdependent conceptual, linguistic, or social objects).

Understood as integrated, constellationally contained facets of the world, the neo-Piagetian structures of mind/cognition, for example formal operations in the (neo-)Piagetian scheme, refer to the structural capacity of a human subject to see or disclose linear causality, a reality which actually exists in the world. Similarly, meta-systematic operations (M. L. Commons et al., 1984) refer to the capacity to disclose the holistic causality emerging from the interaction of multiple causal mechanisms across multiple nested systems, which again has an independent and anterior existence as a reality in the world. It’s not that holistic causality is merely a mental imposition on the world—it clearly exists as an ontic or intransitive reality in the world, as Bhaskar transcendentally retroduces—and yet a certain structure of the mind (meta-systematic operations) is a necessary condition for it to be disclosed in the epistemic or transitive dimension of the mind. Moreover, this meta-systematic structure discloses, meta-reflexively, the pluralism of interwoven epistemic structures that are themselves also a seamlessly interwoven part of the intransitive world—the world itself generates the structures through which facets of its own depth and complexity can be disclosed in consciousness. More of the complexity of reality can be revealed in the later-stage epistemic structures, and thus with each higher-order structure there may be a tendential directionality, in principle, toward a progressive de-centration or diminishing of an aspect of what Bhaskar (2002/2012a, 2002/2012b) refers to as the “demi-real” elements, or that which is falsely premised but real,
due to its causal efficacy. By this I don’t mean to imply that later-stage structures are necessarily ‘truer’ and less demi-real than developmentally earlier ones—of course a late-stage (meta-systematic) perspective could certainly be marred by all kinds of (complex) illusions and systematic distortions. What I am suggesting, however, is that later-stage structures, with regard to their sheer increase in perspectival-cognitive complexity and reflective abstraction, are a condition for the possibility of disclosing ‘more truth’ and avoiding what I am calling vertically reductive demi-realities, as opposed to horizontally distorted demi-realities. Vertically reductive demi-realities refer to the aspects of reality that are absent or reductively represented by virtue of a mismatch between the complexity of an object (in the intransitive dimension) and the (limited) complexity of a knowing subject’s epistemic structure. Therefore, the development of cognitive-structural complexity is tendentially correlated with a diminishing of vertically reductive demi-realities. For CR there often appears to be an unreflected presupposition that individuals somehow naïvely, or almost voluntaristically, choose to disclose cognitively skills like the capacity to reflect on complex systems (e.g., the dynamics of a capitalist sociosphere) or understand holistic causality—skills that are potentially critical conditions for the possibility of both understanding its key theoretical conclusions and actualizing its emancipatory aims in practice. To help remedy this and other absences, CR, therefore, could, after shedding its moments of irrealism, adopt aspects of IT’s robust taxonomy of the cognitive capacities, or neo-Kantian epistemic structures rooted in neo-

196 Also see Zachary Stein’s (2022) chapter in Big-Picture Perspectives for Planetary Flourishing, wherein he convincingly demonstrates that Bhaskar’s (1993/2008) four-fold judgement scheme, as well as his notion of the ‘meta-reflexively totalizing (self) situation,’ are presented as given capacities which are necessary conditions for the possibility of social emancipation and transformation by Bhaskar, but in fact they are advanced developmental achievements contingent on extensive education. Stein’s (2022) important work, in resonance with my critique, names this as the ‘cognitive maturity fallacy.’
Piagetian developmental structural research, integrating them in transfigured (i.e., non-Kantian) form into its scientific ontology and epistemology in a coherent transcendental realist manner. Moreover, such a move seems particularly apt given the dialectical (and implicitly developmental) logic already present within CR.

Beyond its theoretical value, the realist transformation and integration of IT’s epistemic taxonomy into CR’s ontology and epistemology also would strengthen CR in the context of applied scientific research, potentially advancing it particularly in the context of social scientific research. While CR’s critical naturalist approach to social science (Bhaskar, 1979/1998) and ‘critical methodological pluralism’ (Danermark et al., 2002) has been lauded in the academy as a leading alternative to both (post)positivism and social constructivism alike, it has also been criticized for its insufficient engagement, in practice, on the level of the transitive, epistemological dimension, which appears to be due in part to its lack of a robust scientific ontology of epistemic structures (such as that of IT) (Alvesson & Sköldberg, 2009). From the vantage point of IT’s intricate taxonomy of epistemic structures and its appreciation of the profound importance of the transitive-constructivist dimension of knowledge production, CR may run the risk of unknowingly hypostatizing various subjective and intersubjective phenomena, thus potentially transposing various epistemic elements into ‘ontological’ elements in an insufficiently critical manner. For example, Alvesson & Sköldberg (2009) state, in their discussion of critical realism as a leading alternative to (post)positivism and social constructionism, that while critical realist researchers:

are aware of the precarious nature of research (as inevitably problematic and arguable) […] little space is granted to such discussions, apart from occasional confessions that come across as
Thus, while CR acknowledges the constructivist element (or transitive dimension) in social scientific inquiry, devoid of a robust epistemic taxonomy, it may tend to pay too little attention to these transitive elements and their crucial role in the social process of knowledge production. CR social science might therefore be at risk of insufficiently accounting for the transitive dimension of inquiry and therefore insufficiently safeguarding against the potential import of hidden ideologies (see e.g., Foucault, 1966/2002, 1972 who discusses such hidden ideologies in the context of the human sciences). It may thus run the risk of being written off or marginalized by those concerned with the hermeneutical and social constructivist complexities of inquiry, thus diminishing its emancipatory potential in the world. Concomitantly, CR social science may likewise run the risk of being co-opted by those with a positivist affinity who do not acknowledge the intricacies of knowledge construction in any substantive way. Those individuals who consider themselves to be under the broad umbrella of critical realism yet (perhaps tellingly) propose to drop the ‘critical’ from ‘critical realism’ might indeed be suspected of such an implicitly positivistic disposition.

CR’s insufficient account of the complexities of the transitive dimension, rooted in its lack of a model of inter-individual epistemic-hermeneutic variability, leads to a number of other problems in practice as researchers apply CR’s RRREI(C) schema to social scientific research.

197 The RRREI(C) schema is a modification of the DREI(C) schema for use in applied open systemic research. The DREIC schema is the critical realist model for pure scientific activity (wherein the researcher moves from one level of reality to another with concrete detail (Bhaskar et al., 2018, p. 45). In the DREI(C) schema, researchers attempt to describe a particular pattern of events, retroduce an explanatory model of the causal mechanisms, eliminate
(Bhaskar, 1979/1998; Danermark et al., 2002). When social scientists aim to develop an explanatory model of events happening in the open systemic world, which is defined by a conjunctive multiplicity of causes or generative mechanisms (as opposed to a disjunctive plurality), they deploy the RRREI(C) schema (Bhaskar et al., 2018, p. 45). According to this model, which underscores the logics of abductive redescription and retrodiction (rather than retroduction), the first phase of the research process is the resolution of the complex event or phenomenon into its components, involving a conjunctive multiplicity of causes; the second phase entails the abductive redescription of these components in an explanatorily significant way; the third phase is the retrodiction of the component causes to antecedent events or states of affairs; the fourth is the elimination of alternative competing explanatory antecedents; fifth is the identification of the causally efficacious antecedent (or antecedent complex); and the sixth and final step is the iterative correction of earlier findings vis-à-vis the provisional explanation carried out. Without an adequate epistemic model, such an approach may be somewhat problematic in practice. As Alvesson and Sköldberg (2009) argue,

different researchers have different views regarding the ‘necessary constitutive properties’ and even if one had the good fortune to find researchers sharing the assumption about such properties, they would most likely come up with different ideas on the nature of such properties, and they would probably disagree over the events that the objects can be seen as capable of producing. Use of different perspectives would probably lead to different properties and different produced objects (p. 45).

Thus, to effectively engage in explanatory social science of open-systemic, multiply determined, contingent events, particularly with respect to the elimination of competing explanations, data and explanatory theories need to be situated within comprehensive methodological and epistemic taxonomies. That is, our capacity to explain aspects of the open, structured, competing explanations, identify principal generative mechanisms that produce such a pattern of events, and correct the model in an iterative manner in light of new data.
interconnected, and changing social world is enhanced by rich and structured frameworks of epistemic reflexivity that can bring greater systematic rigor to methods such as “contrast explanation” (Lawson, 1997, 2003). Integral theory’s emphasis on situating the positionality of the researcher in relation to its epistemic taxonomy (Hedlund, 2010b) could help to mitigate problems of inter-individual epistemic-hermeneutic variability—critical realists need only re-contextualize this in terms of making transparent salient socially produced, fallible elements of our knowledge of objects. The epistemic and methodological positionality of the researcher is not solely constitutive of the ontological reality of an object, but it does profoundly shape not only the ways in which the researcher cognizes and interprets the object of inquiry, but also interfaces with—and impacts—the object of inquiry internally as it comes into a relational assemblage as part of a complex totality or open system. In other words, epistemic structures are constellationally contained by the world and its objects, and they are therefore part of a conjunctive multiplicity or ensemble of causes that also describe aspects of the world. This internal relationality thus potentially generates specifically structured forms of what social scientists call *reactivity* (e.g., ‘the Hawthorne effect,’) wherein individuals modify aspects of their behaviour or attitudes due to the effects of being studied, including a simple awareness of being observed (Heppner et al., 2008, p. 331).

The heightened self-reflexivity that IT’s epistemic taxonomy supports can help both to mitigate and situate specific reactivity effects, which in turn may help CR social scientists articulate more reliable and valid explanatory models. Thus, IT’s methods for fostering such methodological and epistemic reflexivity by ‘researching the researcher’ (Hedlund, 2008, 2010b) and locating one’s
scientific positionality vis-à-vis IT’s taxonomy of structures (integral epistemological pluralism) and meta-methodological map (IMP) may have much to offer CR in general, and its emancipatory social scientific approach in particular.

While CR claims to go beyond the myth of a God’s-eye-view or Nagel’s ‘view from nowhere’ by self-reflexively locating its own theorizing within a geo-historical trajectory, it could substantially enhance its epistemological self-reflexivity by adopting IT’s epistemic taxonomy (or at least some aspects of developmental-structuralism) as a tool for generating much more specificity in terms of its own positionality within a matrix of structures. Bhaskar (2002/2012b) refers to “reflexivity, or the capacity of a theory or discourse to coherently situate and sustain itself, is very important, indeed the supreme, criterion of philosophy” (p. 176). In short, IT holds the potential to complexify CR’s scientific ontology and theory of the transitive dimension with its taxonomy of epistemic structures to complement its depth ontology.

Lacking such a robust scientific ontology of human knowing, CR generally seems to deal with divergence by leaning towards the philosophical ideal of rational adjudication, which IT would acknowledge is important under certain conditions, but is inadequate as an overall approach from IT’s developmental-structural vantage point. From an IT perspective, it is not always practical or ethical to try to rationally adjudicate disagreements that reflect deep structural differences in cognitive-epistemic capacity and worldview. This is not always a simple matter of rational adjudication, but requires an understanding of developmental differences, as well as an appropriate strategy for compassionately and effectively relating across worldview structures,
including those that have yet to achieve formal operational critical rationality (De Witt, 2015; De Witt & Hedlund, 2017; A. Hedlund-de Witt & N. Hedlund-de Witt, 2013). While it is more obvious when one considers a case of child development, the same principle holds for adults and their disputes, as they continue to develop through the many structure-stages articulated by IT. Visionary realism might therefore lean towards an integrative-pluralistic concept of what could be called *rational-structural adjudication*, rather than the more monistic rational adjudication that a CR approach would tend toward. Conceptualized as such, rational adjudication, devoid of the kind of insight given by developmental-structuralism, seems to assume a kind of ‘flat’ notion of rationality that is presumed to be available universally. This confuses ontology with epistemology. There is an ontological reality as such, but we can only construe and make sense or meaning of it via cognitive-developmental structures. Such rational-structural adjudication would attempt to mediate divergence in perspective not only on the basis of a singular rationally founded reality but would attempt to do so also by acknowledging a multiplicity of transitive (inter)subjective structures and their corresponding ‘demi-realities’ imbued with varying degrees of falsehood and truth. That is, it would attempt to rationally mediate alethic and demi-real aspects of reality.

Overall, when viewed in light of IT, there are some important absences in the epistemic domain that CR arguably must come to terms with. These absences, which may also lead to contradictions in practice, can be addressed by rethinking aspects of its epistemic model in light of IT’s epistemic taxonomy, or minimally some key findings in developmental psychology. Having critically assessed CR in light of IT, I will now turn to my concluding remarks.
Forging a Visionary Realist Synthesis

In this chapter, I set out to explore the most salient strengths (moments of truth and coherence) and weaknesses (absences and contradictions) of both CR and IT within the domains of ontology and epistemology, attempting to reveal their key points of complementarity, as well as incommensurability, and in doing so, moving towards the forging of a provisional metatheoretical synthesis in a visionary realism. A dialectically negative method was deployed, involving a transformative sublation driven by absences and contradictions in each metatheory’s logics (immanent critique) and a preliminary illumination of aspects of their potential causes. Such an analysis led to a rethinking of key elements of each metatheory’s architectonics, the negative transfiguration of their inadequacies, and the charting of a provisional course toward an expanded conceptual field (a visionary realism) that brings them together in a non-preservative synthesis. Importantly, as I will elaborate, my central underlying interest for this project was the rethinking and development of the intellectual resources that can adequately address the complex and urgent global challenges of the twenty-first century (including the metacrisis at large and climate change in particular).

In Chapter 3, I began by providing a synoptic overview of IT in the domains of ontology and epistemology, noting that IT’s post-metaphysical approach asserts the primacy of epistemology (and methodology) over ontology, thus emphasizing the phenomenal pole of Kant’s transcendental dialectic, and championing a kind of subject-oriented, enactivist ontology, rich with epistemic distinctions and categories. I then offered a comparable summary of CR, noting
that its transcendental realism and critical naturalism uses the method of transcendental argument to assert the primacy of ontology over epistemology (and methodology), thereby emphasizing the noumenal pole of Kant’s transcendental dialectic and articulating an object-oriented, realist depth-ontology equipped with multiple distinct and stratified categories. In this chapter, I then immanently critiqued IT in the light of the conclusions of CR’s transcendental (realist) arguments, demonstrating the ways in which IT’s enactivism and post-metaphysics is marred by performative self-contradiction rooted in its commitment to inter alia what CR calls the ‘epistemic fallacy,’ which reduces ontology to epistemology and necessarily presupposes an implicit philosophical ontology or pre-critical metaphysics. I then highlighted the consequent problematic of IT’s inability to coherently account for and sustain itself on a meta-level (i.e., its lack of adequate philosophical self-reflexivity) and contrasted it with CR’s transcendental realism, which offers a sophisticated, procedurally rational pathway to arriving at a philosophical ontology that IT would do well to consider—and indeed, appears to be its only viable alternative. This critique is likewise transcendental in that it demonstrates IT’s account, drawing on CR’s transcendental realism, to be inconsistent with the possibility of science and issuing a transcendental refutation by elucidating the necessary conditions of its possibility in a

198 While I refract each metatheory in the light of the other, the thrust of my critique is nonetheless immanent, meaning that it departs from the internal systemic logics or logoi of each metatheoretical account, deploying an essentially transcendental procedure to follow the logical threads to their own conclusions, which revealed internal contradiction and/or absences. The conclusions of transcendental arguments (such as that of Bhaskar) can then be incorporated into an immanent critique. If those transcendental arguments pertain to the possibility of science (as Bhaskar’s do), then an immanent critique can also be a transcendental critique, if it “demonstrates that an account is inconsistent with the possibility of science (or human intentional agency as such) and shows what its conditions of possibility are, issuing a transcendental refutation” (Hartwig, 2007, p. 106). Thus, my critique of IT is immanent and transcendental. My critique of CR is largely immanent with some intimations of transcendental critique vis-à-vis CR’s epistemological self-reflexivity (i.e., that it lacks the epistemic categories to coherently sustain an account of its own meta-systematic metatheorizing). That is, CR, in its current articulation, cannot sustain a meta-reflexive account of its own account of the possibility of science with respect to the meta-systematic cognitive-developmental structure that it presupposes.
realist depth ontology and fallibilist epistemology (Bhaskar, 1979/1998, p. 120; Hartwig, 2007, p. 106). Finally, I evaluated CR in light of IT, illustrating the ways in which it lacks nuance and sophistication vis-à-vis the epistemic categories it (implicitly) uses to describe the world and its own substantive theorizing (i.e., its lack of adequate scientific self-reflexivity), and suggested that this deficiency also amounts to a blind spot in terms of CR’s account of inter-individual epistemic-hermeneutic variability. Such a deficiency may therefore undermine CR’s commitment to seriousness and worldly emancipation, both in terms of its capacity to effectively practice emancipatory social science and in terms of dealing with disagreements about key aspects of the metacrisis, such as climate change, in the public sphere. I then contrasted CR’s model with IT’s epistemic taxonomy, which offers a robust scientific ontology or meta-framework of the varied categories of human knowing and their processual unfoldment, which might support both CR’s scientific and emancipatory projects in decisive ways. Highlighting CR’s internal commitments to self-reflexivity and the coherent integration of the results of science, I argued that its own internal logos naturally leads it to the incorporation of psychological and cultural developmental insights, such as that of IT’s epistemic taxonomy. To be sure, my critique of each metatheoretical stream reveals serious problem fields, absences, and contradictions in both. However, it also reveals a somewhat asymmetrical picture in which the contradictions in IT relate to its very foundations—its ontological and epistemic architectonics—which I argued cannot be resolved with superficial theoretical patches, but rather demand negative transfiguration at a root level. In essence, this would mean the shedding of its irrealist enactivism and (en)actualism and the adoption of a critical
realist depth ontology. In contrast, the absences demonstrated in CR, while pointing to some degree of contradiction in terms of its own epistemological self-consciousness in the sciences, largely relate to areas for further metatheoretical development, rather than a foundational shedding and transformative negation. In my view, however, this does not mean that the problems noted with respect to CR are not critical or do not potentially have far-reaching implications both in theory and practice. Clearly, there are some important absences in the epistemic domain related to the processes and generative structures that mediate or disclose accurate renderings of intransitive objects, as Bhaskar (2016a) himself has broadly acknowledged. IT, having scanned across the horizon of extant theories in development-structural psychology and developed a meta-level epistemic taxonomy, can be instructive here. Thus, in essence, remedying the absences in CR would mean the addition and incorporation of IT’s taxonomy of epistemic structures and categories (or pursuing similar metatheoretical analyses in this field of developmental-structuralism) along with the integration of the implications of such findings into its epistemology, also enhancing its philosophical self-reflexivity.

While this account of CR’s and IT’s respective ontological and epistemological foundations is notably limited by the synoptic method of hermeneutical dialectics I have employed (as opposed to, for example, a more detailed comparative philosophical method and exegesis of all relevant texts), as well as by virtue of my own epistemic-hermeneutic positionality as a

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199 Similar to the notion that IT does not have a monopoly or patent on developmental psychology, so too CR does not have a patent on procedurally rational (critical) ontologies, or metatheory α. As Bhaskar himself states, CR’s transcendental realist arguments are indeed open to critique (see e.g., Groff, 2007; McWherter, 2013, 2015, 2017). However, I am not aware of any compelling transcendental critiques or apodictic alternative arguments vis-à-vis CR’s transcendental realism.
researcher and embodied personality, I nonetheless have attempted to be as precise and even-handed as possible, striving to highlight salient absences and internal contradictions in each approach in an effort to incite reflection and foster the theoretical development of both. Moreover, aspects of my interpretations have been substantially informed by the Critical Realism & Integral Theory Symposia, which could be seen here to constitute a kind of informal and loose peer-validation of a number of these perspectives, thereby arguably enhancing their validity. Whether one agrees with my substantive interpretations and remedies in full, I hope to at least have drawn attention to some problem fields that need to be considered and addressed in both communities of discourse in the coming years.

With respect to the project of sublation or non-preservative synthesis of the two schools, my analysis has, in addition to revealing absences and inconsistencies, arguably demonstrated how the respective internal logoi of both CR and IT naturally flow—in the direction of their transformation and integration into a more comprehensive and sophisticated integrative metatheory 2.0 that can unite the strengths of both while jettisoning their respective shortcomings. For IT I argued that this relates primarily to its post-metaphysical commitments to a procedural rationality, while for CR, I suggested that it connects to its interrelated commitments to a developing integrative pluralism that ongoingly incorporates and coheres with valid scientific findings (the ‘critical realist embrace’), as well as its commitment to seriousness, or the coherence of theory and practice, reflexivity, or the ability to sustain a coherent account of itself (‘the supreme criterion’), and auto-critique, or immanent self-

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200 See Hedlund (2008, 2010b) for detailed, albeit outdated, accounts of my own positionality as a researcher, situated in relation to IT’s epistemic taxonomy.
critique. Such mutual immanent critique identifying contradictions and absences led to a philosophical explanatory critique that arguably identified their primary causes: in IT, the lack of a realist depth ontology and commensurable epistemology; in CR, the lack of an adequate taxonomy of epistemic categories and commensurable epistemology. The combined action of these immanent and explanatory critiques demonstrates that both CR and IT’s accounts of themselves are inconsistent with the possibility of science, illuminating what the conditions for the possibility of consistent, reflexive accounts are, thereby issuing transcendental refutations. In the case of CR, the lack of an epistemic taxonomy, while not intended at the outset of my research, amounts to a provisional transcendental critique of each metatheory’s basic ontology and epistemology, naturally leading to the elaboration of their sublation in a higher-order intellectual formation as a visionary realism.

In my view, CR and IT are in essence clearly born from the same dynamic patterning—cut from the same integrative, emancipatory, metamodern cloth—as evidenced in their stunning conceptual resonance and similarity across many domains (e.g., CR’s four-planar social being and IT’s four quadrants; CR’s emergent levels and IT’s developmental levels) (P. Marshall, 2012c). Yet, as I hope to have highlighted in this (and the preceding) chapter, CR and IT are not mere recapitulations of one another, but rather through their differences (and points of incommensurability), each brings forth unique and complementary gifts that cannot be found in the other in their present form—the strengths of each remarkably seeming to coincide with the

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201 CR’s four-planar social being, introduced in the late 1970s and published in Bhaskar (1986/2009), preceded that of IT’s four quadrants, which were published in Wilber (1995). It is also worth noting that E. F. Schumacher’s (1977) four fields of knowledge—interior/exterior of myself, interior/exterior of other beings and the world—appears to be the first published articulation of these four domains, which seem to be homologous with the quadrants.
deficiencies, or areas in need of further theoretical reflection and development, in the other. This feature, which in fact seems to be catalyzed by their architectonic dissonances and dialectical tensions, thus suggests a propitious, mutually enriching encounter between these approaches—and highlights the fruitful potential in forging a non-preservative synthesis. This synthesis rethinks and unites elements of the panoptic visions of both CR and IT into a more encompassing integrative approach that transcends them both—a visionary realism.

In the domains of ontology and epistemology we can readily envision CR’s philosophical depth ontology emboldened by IT’s scientific ontology of epistemic categories. Such a sublation of these architectonics sets the stage for an integration of these approaches along the two poles of the axis of Kant’s transcendental dialectic, IT representing a sophisticated subjected-oriented, predominantly epistemological approach (emphasizing the primacy of the \textit{phenomenal} pole), and CR’s transcendental realism representing a compelling object-oriented approach that underscores ontology (emphasizing the primacy of the \textit{noumenal} pole).\footnote{In this way, we might regard IT’s ontology as a \textit{subject-oriented ontology}, in contrast with CR’s object-oriented ontology. Although, as mentioned above, from the perspective of CR, this stretches the definition of ontology considerably.} A visionary realism might better honour and integrate these two key dialectically constellated approaches in a way that sublates the philosophical discourse of modernity and postmodernity and can re-vindicate ontology for our contemporary intellectual climate. CR’s transcendental realist arguments offer a fundamental break from, and transcendence of, the irrealist philosophical discourse of (post)modernity, while IT’s deep appreciation of the geo-historical complexities of knowledge production ensure that a visionary realism has sufficiently included
its enduring epistemological insights. Furthermore, a visionary realism arguably brings together the superior moments of self-reflexivity regarding the philosophical and scientific aspects of metatheorizing within CR and IT, respectively. Together, given their particular philosophical and scientific strong suits, along with their shared interdisciplinary, integrative, metatheoretical natures, their synthesis in a visionary realism offers a powerful approach to studying and addressing (hyper)complex twenty-first century challenges, such as climate change or the metacrisis at large.

In this chapter, I evaluated both integral theory and critical realism, refracting each in the light of the other in order to analyze and assess each for their internal coherence, comprehensiveness, and capacity to reflexively sustain an account of themselves. In doing so, I canvassed the contours of a synthesis of CR and IT, articulating how aspects of the two schools might be transfigured and synthesized into a more comprehensive and robust (expression of) integrative metatheory 2.0—a visionary realism—that can unite the strengths of both while addressing and transforming their key respective liabilities (absences and contradictions). In elaborating this synthesis, I hope to make the case that something like a visionary realism may offer crucial intellectual resources for addressing the complex global challenges of the twenty-first century posed by the metacrisis.
CHAPTER 5—Towards a Visionary Realism

Man knows himself only to the extent that he knows the world; he becomes aware of himself only within the world, and aware of the world only within himself. Every object, well contemplated, opens up a new organ of perception within us.

Johann Wolfgang von Goethe

It is not that there are the starry heavens above and the moral law within, as Kant would have it; rather, the true basis of your virtuous existence is the fact that the starry heavens are within you, and you are within them.

Roy Bhaskar

Following the mutual critique and non-preservative synthesis of the critical realism and integral theory metatheoretical foundations carried out above, the task of clarifying the resulting visionary realist metatheory is called for. To this end, this chapter aims to underscore and further draw out the emergent features of visionary realism not found in either metatheory on its own and synoptically sketch its overall contours as an integrative metatheory sui generis, and highlight its transformative value in the face of the metacrisis. In the previous two chapters (3 and 4) I deployed a method of hermeneutical dialectics to explore aspects of the relationship between critical realism and integral theory, forging immanent critiques of both metatheories, illuminating key absences and contradictions and their primary causes. The results of these immanent critiques arguably amount to a general transcendental critique and sublation of each metatheory’s extant foundational ontology and epistemology into a higher-order intellectual formation. At this point much of the heavy lifting of this sublation has been done on this foundational level. However, both critical realism and integral theory have vast corpuses and there are potentially many features of each framework that would need to be rethought and

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204 Bhaskar, 2002/2012a, p. 351.
transfigured in light of the mutual critique and basic synthesis forged by visionary realism. While such a task is well beyond the scope of this thesis, in this chapter, I nonetheless continue a narrow aspect of this process to a relative crescendo, following the transcendental methodological ‘golden thread’ of immanent critique vis-à-vis both metatheories to elaborate and further develop some implications of the conclusions thus far. In doing so, I aim to fill out the foundational architectonics of visionary realism to a point where it is ready to be deployed in praxis. Namely, I draw out the implications of integral theory adopting a transcendental realist depth ontology in terms of its central element of quadrants, leading to what I call a pandimensional realism. With respect to critical realism, I draw out the implications of it adopting integral theory’s developmental taxonomy of epistemic structures, leading to a transcendental evolutionary realism. These emergent notions converge to forge an integrative or pandimensional evolutionary realism, a constitutive element of an overall visionary realism. Finally, I reflect on the foundational structure of visionary realism as a whole, offering a synoptic sketch of some of its key emergent elements and principles, underscoring its value in terms of the ways in which it constitutes an integrative vision of the human in asymmetrical-dialectical unity with nature, striving to bring our worldview(s) into alethic resonance with the field of nature. I then apply this in Chapter 6 vis-à-vis the metacrisis.

**Towards a Pandimensional Realism**

The immanent critique of integral theory (in Chapters 3 and 4) led to the revelation of its foundational aporias related to its irrealist post-metaphysical enactivism, specifically its

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205 The phrase ‘integrative evolutionary realism’ has also been used by Stein (2018b) to broadly point to the approaches emerging from the Critical Realism & Integral Theory Symposia series (Bhaskar et al., 2016).
commitment of the epistemic and (en)actualist fallacies. The solution to this problem field is clear: integral theory adopts a critical realist depth ontology, eschewing particularly the epistemic fallacy, the (en)actualist fallacy, and its superidealistic irrealism generally. At a minimum that would mean incorporating the critical depth ontology associated with basic critical realism, which visionary realism largely preservatively sublates. Such a move, if the fallacy of ontological monovalence (viz., a purely positive account of reality; a metaphysics of presence devoid of absence) is likewise to be avoided, necessarily involves a realist rethinking or negative transfiguration of the elements of integral theory entangled in its irrealism, beyond its general philosophical irrealism. In other words, upon identifying contradictions and their resolutions on the level of integral theory’s metatheory $\alpha$, aspects of its metatheory $\beta$ (e.g., quadrants, levels) need to be rethought to cohere with the negative transfiguration on the level of its metatheory $\alpha$ ($\Delta\alpha \rightarrow \Delta\beta$) in the process of forging elements of an integrated visionary realist metatheory $\gamma$. As we saw in Chapter 2, metatheory $\alpha$ refers to the foundational philosophical architectonics of an overall (meta)theory; thus, a transfiguration on that level is a kind of tectonic shift that shakes up everything upon which it rests, demanding systemic coherence. This understanding stands in stark contrast to the model of Hegelian-Wilberian preservative synthesis, which tends to downplay the importance of negation and

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206 The incorporation of aspects of critical realism’s deeper ontology associated with dialectical critical realism and the philosophy of meta-Reality are perhaps not entirely necessary for integral theory to resolve its core contradictions, but are important additions that visionary realism draws on. That said, the problem of ontological monovalence (i.e., a purely positive account of reality) is only implicitly resolved by basic critical realism, while its explicit resolution comes only through dialectical critical realism and its account of real determinate absence and ontological negativity (i.e., its metatheory of ontological bivalence). Likewise, the philosophy of meta-Reality may be more complementary to integral theory than essential. Specifically, integral theory’s philosophy of non-dualism, which is justified methodologically vis-à-vis a deep or radical empiricism of contemplative phenomenology, could be triangulated and further supported by adopting critical realism’s secular transcendental methodological arguments for non-dualism.
transfiguration and overlook contradiction and absence. In Chapter 4, such a sketch of a realist rethinking or transfiguration was carried out with respect to IT’s ‘levels’ (or developmental structures), construing them as real intransitive objects in the world that simultaneously can be inhabited by human agents to disclose transitive knowledge, which is also part of the world. In other words, the visionary realist synthesis of integral theory and critical realism weaves together multiple transcendental threads to suggest an asymmetrical and dialectical unity between ontological being and epistemic knowing wherein being constellationally enfolds knowing such that knowing is an emergent part and participatory expression of being. This effectively forges a new vision of the world wherein being and knowing are no longer split asunder as Kant and his followers would have it, but rather are rewoven in a complex dialectical unity that preserves their differentiation. In resonance with this understanding, in this chapter I engage a similar transfiguration process in relation to IT’s notion of ‘quadrants’ to more explicitly unpack the basic elements of visionary realism, arriving at an ‘all-quadrant’ or pandimensional realism. Thus, I will further elaborate the implications of ‘integral theory getting real’—to borrow a phrase from the philosopher Michael Schwartz (2016)—exploring further negative transfigurations of its metatheory β concomitant with its necessary adoption of critical realism’s (α) depth ontology.

Quadrants are the first and arguably primary element of integral theory’s so-called five element or ‘all quadrant, all level’ (AQAL) model. According to integral theory, quadrants\textsuperscript{207} are understood to be primordial and irreducible onto-epistemic dimension-perspectives

\textsuperscript{207} See Wilber (2003, 2006).
(subjective, intersubjective, objective, and interobjective) that ought to be accounted for in any holistic understanding of a phenomenon. Quadrants point to the notion that any occasion or phenomenon can be seen through the lens of two basic distinctions: an interior and exterior perspective; and an individual and collective perspective. Sentient beings (or holons, as integral theory refers to them) are said to possess these as dimensions of their being. The right-hand quadrants, Wilber claims, are characterized by (inter)objectivity, while the left-hand quadrants are characterized by (inter)subjectivity. While more nuance could be evoked with respect to quadrants—viz., the distinction between quadrants and quadrivia, their connection to the more complex model of the eight horizons and related primordial perspectives, integral mathematics, pronouns, methodological families, methodologies, and methods, etc. (Wilber, 2003, 2006)—my aim here is to look at the logical implications of integral theory’s necessary adoption of a realist depth ontology for the notion of quadrants.

My critique revolves around the treatment of subjectivity and objectivity. Namely, from a visionary realist standpoint, subjectivity cannot be relegated or reduced to the left-hand quadrants (interiority) and objectivity to the right-hand quadrants (exteriority), preserving the Kantian metaphysical gap between subject and object, even if they are understood to be ‘co-arising’ as integrated dimensions of sentient holons, as Wilber would have it. I argue rather against the subjectivization of interiority, since it implicitly denies the ontological reality of interiority, which is in fact every bit as real as the realities of exteriority (e.g., a rock, the law of

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208 I am aware of the distinction between subjectivity and intersubjectivity, as well as that of objectivity and interobjectivity. However, subjectivity and objectivity will suffice as blanket notions encompassing their ‘inter-’ counterparts for my purposes here.
gravity, etc.). Conversely, I argue for the decoupling of interiority and subjectivity. Interiority is an existentially intransitive ontological domain, whereas subjectivity in an epistemic mode; both are real, but they cannot be coupled if integral theory is going to resolve its aporias and be transfigured into an ontological realism, as visionary realism aspires to accomplish. The coupling of interiority and subjectivity is precisely a manifestation of the epistemic fallacy (viz., as the ontological reality of interiority being reduced to the epistemic mode of subjectivity), albeit a less obvious one, implying a failure to grapple with and resolve the problematics of the Kantian irrealist tradition. Moreover, their decoupling would do much to vindicate and reclaim the realities of interiority (e.g., consciousness, culture, worldviews, ethics, spirituality), which modernity has long denied in its ironically irrational attempt to achieve the Enlightenment ideal of ‘rationality’ contra premodern metaphysics. Of course, this denial of interiority, as integral theorists have convincingly argued, is a scientific materialist ‘flatland’ worldview (Wilber, 1995) or ‘industrial ontology’ (Esbjörn-Hargens & Zimmerman, 2009) that is deeply implicated in the ecological crisis that we are now in the grips of. Wilber, to be sure, champions interiority and staunchly defends against its reduction to ‘frisky dirt.’ However, he seems to have failed to appreciate the ways in which the coupling of interiority and subjectivity has compounded and reinforced the problem of ‘flatland’ reductionism.

Imagine for a moment, as a thought experiment, that this equation (interiority = subjectivity) was reversed such that subjectivity was coupled with exteriority, creating a worldview frame that rendered the systematic exploration of exteriority highly contested if not impossible, since exteriority is subjective, according to this frame. This would likely lead to a culture that lacked
systematic and critical-rational knowledge of the structures and laws\textsuperscript{209} of exterior nature, and therefore those structures and laws would be largely discredited and disregarded in terms of both our everyday decisions and the design of social systems. There would therefore be widespread structural mismatch or dissonance between worldviews and social systems on the one hand, and the realities of the exterior world on the other. Revert the equation back to its original form (interiority = subjectivity) and this hypothetical analogue helps to illumine the dynamics of our actual contemporary world. Because our lifeworld has been so inscribed by Kantian presuppositions, which insist that mind or consciousness can be simply equated with subjectivity and thus that objective knowledge of interiority is an impossibility, we currently lack systematic, critical-rational knowledge of the structures and laws of interior nature. Therefore, we are largely blind to those structures and laws, and consequently tend to disregard and violate them, leading to deep alienation, injustice, epistemic chaos, arrested development, and eco-social crisis. We do not generally expect to violate the laws of exterior nature without repercussion and consequence, but we do, in the late modern West, tend to believe that we can violate the laws of interior nature unproblematically—with no kickback from the reality principle. According to visionary realism, drawing on critical realism, there are indeed real categories, structures, mechanisms, fields, laws, and other organizing principles that exist in the real domain of mind or interiority. Hence, I extend my argument here to explicitly deal with questions of subjectivity, objectivity, and their relations.

\textsuperscript{209} See Appendix Five for a definition of ‘laws.’
Objectivity is a complex and contested notion in philosophy. According to Lawrence Busch (2011),

There are several equally useful (often in different situations) notions of objectivity [...] Some speak of objectivity as the ability to measure things precisely and accurately. Of course, critics might point out that precision and accuracy may be misplaced [...] Some understand objectivity as the avoidance of human subjectivity, its excision from a given situation [...] Some see objectivity as something that emerges out of a community of practitioners [...] Some see objectivity as conformity with certain natural processes [...] as the length of the year is defined in reference to a natural phenomenon over which we have no control [...] Yet another approach is mechanical objectivity [...] the use of (usually) automated numerical techniques and procedures to reduce human judgment to such a degree that it is unnoticeable [...] hence the employment of mechanical objectivity serves as a barrier to unwanted criticism (pp. 68-69).

While, as Busch states, there are a variety of notions of objectivity that philosophers and scientists argue for, most of them can be coded into two basic categories: those concerning reliability and those concerning validity (Stein, 2016b).

**Objectivity as Epistemic Reliability**

Many discussions of objectivity define it in terms of epistemic reliability—that is, in terms of accuracy or precision of a method, consistency of its results and their repeatability or stability over time, and its lack of subjective bias or inter-individual epistemic-hermeneutic variability. Widespread positivistic and scientistic biases and related philosophical impoverishment in the culture of science have led to the persistence of a more or less reductive ‘cult of quantity’ wherein quantitative methods are held as the gold standard of reliability and thus objectivity, or worse, as the only methods with a legitimate claim to objectivity. This might be called the quantitative fallacy, since the use of quantitative measures—so-called ‘rigid rods’ (rulers) and ‘periodic oscillators’ (clocks) (Burtt, 1954)—are merely methodological scaffolding for
developing inter-individual epistemic-hermeneutic consistency and intersubjective agreement. Contrary to the Enlightenment myth of the impartial observer or ‘modest witness’ (Haraway, 2018) who assumes the ‘view from nowhere’ (Nagel, 1986) and does not subjectively interpret or influence experimental observations, such initial interpretations are nevertheless inexorably subjective construals arising in first-person human consciousness. The assumption that objectivity means that the scientist does not actively construe or alter the reality in which the experiment is conducted is patently false, since altering the open-systemic reality in which the experiment is conducted (to create a closed-system in which causal tendencies can obtain) is, again, precisely the point of the experiment! But the measure of the ruler or clock is generally so consistent between the readings of different scientists that the variability is titrated down to micro-dose and high degrees of agreement—thus, reliable, or so-called ‘objective’ knowledge—is indeed obtained. Moreover, the idea of reliability or repeatability as a basis for objective science is called into question by the so-called ‘replication crisis’ (or ‘decline effect’) wherein empirical findings in many areas of the health and social sciences tend to not be reliably replicable (Ioannidis, 2005; Krauss, 2018).²¹⁰ As Gunton et al. (2021) state, “[w]hile the Replication Crisis continues to be investigated across diverse fields, it already shows objectivity-as-repeatability to be underdeveloped as a foundation for science” (p. 3).

It is important to note that reliability cannot be construed in terms of quantitative methods alone (Creswell & Plano Clark, 2011). Reliability indeed pertains to qualitative methods, including those that systematically assess the results of coding—so-called ‘intercoder

²¹⁰ Also see: www.newyorker.com/magazine/2010/12/13/the-truth-wears-off
agreement’ (see e.g., Miles & Huberman, 1994), and those that do so with qualitative measures (e.g., psychometrics)—referred to as ‘inter-rater reliability’ (see e.g., T. L. Dawson, 2004; Stein, 2016b). That is, there are qualitative methods that explore interior objects, including causes and empirical regularities, and achieve a systematic and demonstrable consistency of interpretation and agreement, approximating that of multiple natural scientists subjectively ‘reading’ or interpreting a measurement, such as a ruler or a clock. For example, the methods used in neo-Piagetian developmental-structural psychology for establishing inter-rater reliability in scoring their stage scale psychometrics (e.g., T. L. Dawson, 2002; T. L. Dawson, 2004) demonstrate this kind of reliability or objectivity accessible through qualitative methods that measure intransitive ontological objects in the realm of mind or interiority. The general categorial construal of objectivity largely in terms of reliability remains fashionable in our post/modern cultural milieu, in part since it allows one to remain metaphysically agnostic when it comes to issues of reference, representation, and correspondence. For example, Porter (1995) argues that objectivity, through rigorous methods and disciplined discourses, is knowledge independent of the individual persons involved, but makes no claim of reference to reality. Such views, of course, skirt the contentious issues related to ontological realism, which until recently has been considered passé amongst most sophisticated intellectuals.

Objectivity as Epistemic Validity

Other approaches construe objectivity in terms of epistemic validity. These approaches are oriented to the degree to which a method or set of signifiers actually represents or expresses the referent it claims to. There is a variety of specific forms of validity or validity criteria,
including (most importantly) construct validity, as well as many other inflections of it such as content validity, criterion-related validity, internal validity, external validity, quantitative validity, qualitative validity (Creswell & Plano Clark, 2011), and even meta-validity (Hedlund, 2010b). In short, these approaches construe objectivity primarily in terms of its degree of referential accuracy and efficacy—its ability to describe its object of inquiry accurately and effectively in realist terms.

From a visionary realist standpoint, objectivity construed solely in terms of either reliability or validity is partial, since without an accurate method or measure (reliability), it will be difficult to know if we are truly representing the real object of inquiry (validity). Reliability without validity is not particularly meaningful or useful, while validity without reliability is generally impossible. Epistemic objectivity thus integrates the two such that methods profess to: 1) accurately and, \textit{ceteris paribus}, consistently, gauge the constructs that they claim to; and 2) that those constructs indeed accurately and effectively describe the referent(s) that they claim to.

Objects, of course, are generally known first subjectively in first-person experience. When the methods of knowing an object are rendered transparent, multiple individuals with adequate capacities can take up those methods, in accord with the hermetic principle, and enact a second-person community of discourse and intersubjective knowing vis-à-vis that object. When the results of their inquiries are systematically repeated and tend to produce a consilience of conclusions, subject to critical analysis in peer-review or social validation, then in a very general sense third-person epistemic objectivity can be provisionally asserted, subject of course to
correction or falsification, as it remains fallible. Thus, in the transitive, epistemological dimension ontologically intransitive objects can be known: 1) subjectively, in the first-person experience; 2) intersubjectively, in second-person (or first-person plural) discourse; and 3) objectively in third-person systematic, procedurally rational, peer-reviewed research. It is important to note that epistemic objectivity is technically a systematic and rigorous form of intersubjectivity that provisionally lays claim to the participatory and expressive description or alethic truth of an object. So long as our realism is indeed critical, rather than naïve, we must admit that knowledge is inexorably fallible and relative, situated in a geo-historical trajectory and mediated by various developmental, linguistic, and social structures. Thus, epistemic objectivity represents our best but nonetheless fallible substantive knowledge, as the history of erroneous and anachronistic scientific paradigms makes conspicuous (Kuhn, 1962/1996).

Objectivity as Ontological Intransitivity

Thus, from a visionary realist standpoint, objectivity in the epistemic (and methodological) sense needs to be distinguished from objectivity in the ontological sense. In the epistemic sense, again, objectivity refers to knowledge claims that have been deemed, through third-person systematic, procedurally rational, peer-reviewed research, to refer to what they claim to refer to (validity) in a way that is unbiased, repeatable, and therefore accurate (reliability). By contrast, in the ontological sense, objectivity refers to the transcendentally necessary existential intransitivity of all real entities or objects. Thus, objectivity in this ontological sense has to do with the general status of things as objects—as a part of being—rather than substantive knowledge claims about them.
Objectivity in this ontological sense does not necessarily refer to a lack of reactivity or causal recursivity wherein the knower does have some altering effects on the object of knowing, but rather to the very being of objects and their existential intransitivity relative to the act of knowing, which has been well established by critical realism and explicated in this thesis. The causal interdependence or recursivity of agency and structure lead some researchers to leap from the notion that structure and agency are ongoingly co-constructed to the erroneous, irrealist conclusion that reality is socially constructed in a strong voluntarist and methodological individualist sense. Visionary realism’s process-relational orientation highlights that even if an entity is causally interdependent with the act of knowing, as is to some extent the case with respect to the social world, once it comes into being (at $t_1$), there is nothing that can alter that fact and its causes (at $t_2$)—that fact is irrevocably inscribed into the field of reality. Thus, objectivity in the ontological sense refers simply to the existentially intransitive being of objects—diachronically, objects exist referentially detached\textsuperscript{211} from knowledge about them—again, once an object or structure, through transformative agency, has come into being in the social world, just as in the natural world, it is both determined and determinate, and inalterable—that is, it is existentially intransitive. In short, ontological objectivity refers to existentially intransitivity reality of being, whereas epistemic objectivity refers to methodologically reliable and valid knowledge.

\textsuperscript{211} Referential detachment is related to Bhaskar’s (1993/2008) notion of the semiotic triangle: signifier, signified, and referent.
For critical realism the notion of an ‘object’ tends to be most often associated with the strata of the real, though the actual and empirical are sub-domains of the real and are therefore part of the real (i.e., the real-actual and the real-empirical). However, recall Bhaskar’s causal criterion for ascribing reality to an entity (e.g., Bhaskar, 1997). Real entities, or objects, are things that possess causal powers. All interior objects (ideas, cultural structures, psychological mechanisms) are real for critical realism—even (demi-real) delusions, illusions, lies, and make-believe are real for critical realism, since they impact agency and thereby causation. Indeed, reasons can be causes (e.g., your right arm raised up because you intended to move it). For critical realism, ‘object’ is a global term for something that is real, a real entity, a thing or process that is existentially intransitive, with a detached referent, not necessarily an inert thing devoid of sentience, value, or subjectivity. To be sure, the notion of ‘object’ should not be construed in simple binary opposition to ‘subject’—objects cannot be reduced to material ‘things’ with three-dimensional form and simple location in space-time. All sentient beings, totalities, or ‘holons’ as Wilber (1995) calls them are objects that are also subjects (viz., are endowed with subjectivity as their basic, primordial epistemic mode) such that they are integral totalities or subject-objects.\(^{212}\) The objectivity of sentient totalities, a special kind of object, constellationally contains or ‘transcends and includes’ their subjectivity. More generally, intransitive objects can be interior or exterior, individual or collective—and can exist in all four quadrants or dimensions of reality—in a pandimensional realism.

\(^{212}\) This proposition arguably holds even if the subjective dimension is a kind of proto-subjectivity or implicit consciousness, rather than an anthropomorphism. This follows the critical realist proxy of panpsychism, which one could call a kind of ‘weak’ or humble panpsychism.
To read critical realism, with its emphasis on ‘objects,’ as a kind of right-hand quadrant materialism, in simple dichotomy to a left-hand quadrant idealism, as Wilber (2019) essentially does, is superficial, erroneous, and rather pedestrian, exemplifying one of the most epistemically and ethically problematic uses of the integral model (as a shallow, straw man sorting mechanism that superimposes its own definitions and horizon of meaning on other approaches).²¹³ Any generative hermeneutic encounter between approaches demands a genuine mutual understanding and fusion of horizons of meaning—signifiers like ‘object’ and ‘objectivity’ do not have the same referent in critical realism and integral theory.

Having briefly sketched the notions of epistemic and ontological objectivity, I will return to integral theory’s quadrants. On an ontological level, all four dimensions are objective in the sense that real, existentially intransitive objects exist in each of them. And, of course, in a depth ontology each of those objects can actualize as events that can be experienced and semiotically construed on the level of the empirical. Objectivity is not bound to empirical regularities or events with simple location in the right-hand quadrants. Things with simple location and material substance do not have a fundamentally different ontological status in the sense of being somehow ‘more real’ relative to that of ideas, psychological structures, cultural structures, etc. On an epistemic level, these interior objects in the left-hand quadrants can, in principle, be known objectively by epistemic subjects that are themselves stratified embodied

²¹³ This kind of simplified use of integral theory as an abstract mapping or sorting device defining classic dichotomies (e.g., realism on the right, idealism on the left) may also reflect developmental differences in its understanding. See Stein (2008) for a discussion of developmental differences in the understanding of integral theory.
personalities and thus complex conjunctural objects\textsuperscript{214}—that is, part of the ontological world they are exploring and construing. In practice, however, given that the appropriate methods, epistemic capacities, and community of systematic inquiry are needed, this too often remains unactualized.

\textit{Towards a New Science of Interiority}

The lopsided materialistic cultural development in the West (disenchantment) is largely due to the selective and asymmetric application of critical reason to the natural sphere of exteriority (a function of idiosyncratic cultural dynamics in modern European history), which Habermas (1984), building on Weber, has explicated in some depth (the so-called `selective application thesis'). As a result of this, the domains of interiority (consciousness/subjectivity and culture-ethics) have not yet been systematically rationalized and we are left with a false forced choice between irrational religious dogma and disenchanted rationality. There are of course alternative potentials that have yet to be pursued at scale. This understanding opens new and vast horizons for the scientific study of interiority or consciousness, including spiritual phenomena. The scientific study of interiority and spiritual phenomena beckons the possibility—and perhaps necessity—of the re-enchantment of the world, thus addressing the metacrisis, and supporting the emergence of a eudaimonistic society.\textsuperscript{215} My hope is that

\\textsuperscript{214} The stratified embodied personality is, again, a concrete singularity that is the actualization of a conjunctural multiplicity of substantively mediated, contingent generative mechanisms.

\textsuperscript{215} In contrast to much of the culture of contemporary spirituality, which often claims that too much reason prevails in late modernity, I argue that too little reason is more the problem. I have elaborated some of these issues in Appendix Two below, drawing on Habermas to discuss the crucial project of rationalizing the spheres of interiority as a pathway to re-enchantment. I also point to the potentials for developing a secular spirituality grounded in reason, combining transcendental methods with an expanded empiricism that draws on William James’ (1912) ‘radical empiricism,’ Stephen Phillips’ (1986) `mystic empiricism,’ and Ken Wilber’s (1998)
visionary realism and its pandimensional realism might help to underlabour for this ‘unfinished project of enlightenment,’ as Habermas (1984) calls it.

What Habermas seems to overlook, however, is that the attempt to rationalize the lifeworld in all its spheres will remain systematically distorted by the scientistic hegemony of positivism and its underlying empirical realist ontology. Habermas defends against positivistic naturalism’s encroachment on the interior spheres, arguing for a hermeneutic approach to the social sciences, while failing to critique the aporias of positivism. This general position has contributed to a strong splitting of ‘the two cultures’ within the post/modern academy and public sphere, wherein natural science generally lays an exclusive claim to objective knowledge—the laws of nature and facts—while the social sciences tend towards a discontinuous heap of often incommensurable perspectives regarding more local and context-bound realities.

To date, the failure of many social scientists to critique the underlying presuppositions of prevailing irrealist and positivist metatheories has unwittingly left the social sciences stuck in somewhat of a ‘soft-scientific’ straightjacket without much purchase on objectivity. But when, following the critical realist lead, positivism is in fact scrutinized, it becomes clear that it is mired in contradictions that render it unintelligible and therefore ideological, and the taboo against a social scientific naturalism is rather unfounded. Indeed, one of Bhaskar’s (1979/2015, 1986/2009) most masterful points is that there are transfactual (or objective) structures, ‘deep/broad empiricism.’ Such a programme could offer a pathway towards a rational reclamation of the ‘sacred’ as a legitimate discourse in the public sphere, helping to rebuild solidarity, while also potentially resolving some critical tensions at the faith-reason cultural fault line.
generative mechanisms, causes, forces, fields, laws/tendencies, facts, etc. in the social world.

The natural sciences are often seen to have an altogether different and superior epistemic status in the public sphere, particularly amongst policymakers, because of committing the positivist fallacy, unchallenged by most social scientists, that the natural sciences are the only facet of our world endowed with law-like tendencies, while in fact there are contingent causal laws in social systems, and in psychology—and there are rich histories of some of the scholars who have discovered some of these, like Piaget, which are relevant, yet often lost in the pluralist heap of the social sciences as ‘just another theory.’ In short, visionary realism’s pandimensional realism builds on Bhaskar’s above insight to argue that there is a realism or naturalism not just in the natural sciences, but in the social domain as well, and the laws of these domains are related.\(^{216}\)

The sharp division between the natural sciences and their explanation of causes and cultural sciences and their understanding of meaning, for visionary realism, turns out to be a deeply problematic Kantian anachronism that is so deeply ingrained in modern consciousness that it is rarely questioned. The interior lifeworld is not just an (inter-)subjective sphere intrinsically bound to the mere disclosure of meaning through intuitive experience and understanding; it is a sphere also imbued with law-like tendencies, structures, and causes that can be explained via formal abductive inference. Likewise, I would argue, the natural sphere cannot be reduced to a world of meaningless atomistic ‘objects’ moving about according to deterministic mechanical laws; rather, the natural world, which can indeed be described in terms of laws, structures, etc., is also intrinsically saturated with rich meaning and

\(^{216}\) The field of quantum social science, particularly Wendt’s (2015) quantum social theory, may provide insight into how the physiosphere, biosphere, and sociosphere can be understood to be unified, in a non-reductionistic manner, by quantum principles, such as entanglement.
can also be engaged via hermeneutic methods of empathic understanding.217 These insights, I argue, lay the groundwork for the paradigm shift towards a new, integral science that seeks to uncover the deep structures and contingent law-like tendencies of interiority together with the natural laws of exteriority—while understanding both realms to be in a relation of asymmetrical unity ubiquitously suffused with intrinsic meaning. These architectonic shifts on the level of philosophy of science are the essential visionary realist solution pattern for the problem field of disenchantment and its second- and third-order eco-social, ethical, existential, and epistemic effects on the metacrisis.

This perspective of a naturalism that is exclusively confined to the natural scientific domain is in part attributable to better methods for addressing and mitigating the problem of inter-individual variability. That is, in the natural scientific domain, we have quantitative measures that we think confer purchase on objectivity or the revelation of real laws and structures, but in fact they are just tools that help us to scaffold more effective consensus about what is really going on. The assumption that the social sciences do not deal with structures of natural necessity has led to an underdevelopment of rigorous and reliable methods that can disclose enduring ontological patterns in the social world; the social sciences and have thus become largely satisfied to pursue hyper-hermeneutic, social constructivist, and post-structuralist methodologies. These post-modern methodologies and philosophies have helped generate and reproduce an understanding of the social sciences as a fragmented, infinitely pluralistic sphere of non-progressive knowledge. This has inhibited scientists from studying those structurally

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217 The elaboration of such a hermeneutic approach to the study of the natural sphere (nature,) is beyond the scope of this thesis.
resistant, intransitive realities of the social world—those aspects of the social world that resist misinterpretation, as Peirce and Tomas (1957) might put it.

Certain streams of research, such as that of the neo-Piagetian tradition, are exemplars of an approach that has developed and advanced this kind of methodology that discloses deep structures of interior reality. But all too often social scientists will interpret the neo-Piagetian literature as on par with constructivist auto-ethnographies, micro-sociological methods, and so on. This is not to say that these kinds of emic (inside, first-person) methods are not important or useful—they certainly are—but it is problematic that they are often lumped together with etic (outside, third-person) methods that pursue a naturalistic aim to identify the contingent tendencies of stable and universal generative mechanisms. Apt metatheory β ought to distinguish and integrate these. The possibility of a methodologically sophisticated or critical naturalism in the social sciences—that is the left-hand quadrants of culture and consciousness or the stratified embodied personality and interpersonal relations—ought to be canonical in the academy, along with better distinctions between naturalistic and hermeneutic approaches.

Most natural scientists tend to be naïve in terms of their understanding of interiority. Interiority from this naïve empirical realism or naturalistic reductionism is a black box—there is nothing in the social sphere, according to this perspective, that resists human misinterpretation. But this view is fundamentally misconceived. In fact, there are very resistant structural properties to the way human minds and cultures develop and learn. If we don’t take those into account, no matter how well we understand natural systems, we will not be able to facilitate
coherent social transformation, because we will not understand how to actually support the conditions for transformation in the human mind and heart. We will not understand the capacities necessary to develop cultures that are not coercive, ethically reprehensible, and unsustainable. Even, for example, if we are able to develop the right-hand quadrant technologies and solutions to transition to a carbon-neutral society and address climate change, if doing so involves the persistence of unjust social relations, it will ultimately be unsustainable, because revolt will be all but certain. In short, in making the case for a pandimensional realism I am arguing for a deeper appreciation of the intransitive reality of the structures of interiority, the adequate construal and application of which can potentially have a far-reaching transformative impact in response to the metacrisis.

A Synoptic Overview of Pandimensional Realism

I argued against the coupling of the epistemic mode of subjectivity and the ontological dimension of interiority (viz., the subjectivization of interiority) endemic to the neo-Kantian empirical realist ontology that integral theory subscribes to on the way to delineating a visionary realist ‘all-quadrant’ or pandimensional realism that transfigures and non-preservatively sublates integral theory’s notion of quadrants. In Figure 9, I depict this pandimensional realism in an attempt provide some synoptic clarity.
I have so far underscored the ontologically objective nature of interiority (along with exteriority) and its structures, both individual and collective, but it is also important to highlight the depth ontological element of this model. Within each intransitive ontological dimension (or quadrant), there are intransitive ontological objects or generative mechanisms that exists on the level of the real (as essences or attractors). These real objects contingently express (as events) at the level of the actual, which are contingently known (in semiotically mediated experience) at the level of the empirical. Each of these stratified levels of ontology can be known through transitive epistemic construal, which is itself part of the intransitive ontological world wherein, again, subjectivity is constellationally contained within objectivity. This transitive epistemic construal is mediated by various epistemic structures, including cognitive biases, cognitive-developmental structures/worldviews, and even typological structures. Of course, as I have argued throughout this thesis, these structures of the knowing subject are in
fact objectively real intransitive objects in the domain of interiority that can be actualized to
produce knowledge of (some facet of) the world in a participatory manner, either describing
and expressing an object or producing a demi-real object, or some combination of these. As I
depict in Figure 9 with the lateral arcs extending out to the right from the spheres, transitive
epistemic construal of all dimensions of reality is indeed part of the intransitive ontological
world—subjectivity is contained by an overarching objectivity that cuts across and unifies
interiority and exteriority. Empirical methods, of course, play an important role in this transitive
epistemic construal of the substantive empirical level of reality (which empirical realism sees as
the totality of reality), while transcendental methods can be used to apodictically disclose
more abstract and general, but no less real, facets of reality on the level of the actual and the
real.

Furthermore, following Bhaskar’s (2002a, 2002/2012a, 2002/2012b) meta-Reality all these
objects and dimensions and their construal are contained by a foundational or infrastructural
‘level’ behind or beyond the real that Bhaskar (2002/2012a, 2002/2012b) refers to as the
‘meta-Real.’ That is, the meta-Real, at its deepest level, is the “cosmic envelope” (Bhaskar,

218 While I use circles/spheres in this figure as an apt visual metaphor, note that this is not meant as a Hegelian
image of totality as a closed circle, which Bhaskar (1993/2008) explicitly critiques. Each sphere is defined by a
dotted line to express that each is an open, contingent, interrelated, messy, and overlapping totality. Spheres are
used here, in part, due to the holarchical nature of the domains of ontological depth stratification wherein the
meta-Real co-includes the Real which co-includes the actual, which in turn co-includes the empirical. For example,
the empirical and actual are also real, while the real is not necessarily actual or empirical, and the domain of the
actual is not necessarily empirical.

219 Also, while the empirical is depicted at the centre of the figure, this is in no way suggesting an anthropocentric
or epistemological point of view. Rather, the emphasis here is on the fact that the empirical, notably, is the
smallest sphere whereas the meta-Real, the Real, and the actual are comparatively large.

220 The meta-Real is not technically a fourth domain, but rather the foundational or infrastructural level of the Real
and therefore a kind of meta- (or sub-) domain of the Real. While I include the dotted lines around the meta-Real,
it should be understood as the entire ‘space’ or context in which real, actual, and empirical objects arise.
2002/2012a, 2002/2012b), as it envelops all of reality. The cosmic envelope has a strong resonance with what physicists call ‘Hilbert space’ (see e.g., Blank et al., 1994), understood in realist terms as a sub-quantum domain of physical possibility (mass + energy + information) that is both inside and outside spacetime—in its actualized state it is inside of spacetime and has locality, while in its unactualized state it is outside of spacetime and thus non-local. Hence, Bhaskar’s meta-Real/cosmic envelope has two ‘sides’: an actualized one that we can potentially ‘see,’ as well as one that is unactualized and therefore we cannot ‘see.’ These two sides of the meta-Real/cosmic envelope are depicted in Figure 9 in terms of the outermost dotted sphere: the space inside that dotted boundary or fulcrum is the actualized/visible side of the meta-Real, and it is where the label ‘meta-Real’ is pointing, while the space outside it—the entire white ‘page’ or space in which the figure is situated—is the unactualized meta-Real/cosmic envelope. Thus, the figure is meant to point to both the actualized and unactualized sides the meta-Real, which taken together is a condition for the possibility of everything in all domains.

Zooming out, this view of knowledge and reality as one of identity-in-difference or constellational containment helps us to make sense of our place in the world and illuminate how it is possible that we know the world. We can produce (fallible) knowledge that describes and expresses some facet of the world, precisely because we are not ultimately split off from it. In part through a pandimensional realism we can lift the Kantian veil, reclaiming our place as an emergent, dialectically unified part of nature, thus healing our existential alienation, and re-weaving the torn fabric of being.
It is worth noting that Esbjörn-Hargens (2016), Marshall (2016a; 2016b), and Stein (2018b, 2019a, 2022) in particular have forged broadly resonant syntheses of critical realism and integral theory—all contributing to the broad stream of integrative metatheoretical realism, of which visionary realism and its pandimensional realism are a part. Because Stein’s approach, inspired by dialectical critical realism, includes negative transfiguration, it is particularly resonant with visionary realism. Stein (2018b) builds on Bhaskar’s work, likewise emphasizing a realism inclusive of interiority:

[R]ealism about interiors argues [...] for the existence of laws of nature, facts, processes, and tendencies in the domains of the psychological and cultural. Taking seriously the ontology of human interiors means looking at the evolution of consciousness as well as the structures and dynamics of emotional energy. Both forms of realism (exterior and interior) are implicated when you want to make sense of the human in an evolutionary context (p. 212).

Together with Stein, Marshall, Esbjörn-Hargens, and others, pandimensional realism seeks to offer intellectual resources that can contribute to a cultural transformation wherein we move more and more into alignment with these interior and exterior realities on the way to a eudaimonistic society.

Towards a Transcendental Evolutionary Realism

Visionary realism likewise espouses an evolutionary ontology or realism that integrates the interior and exterior dimensions of reality, drawing on neo-Piagetian insights from cognitive-developmental psychology and Piaget himself in terms of understanding the dynamics of deep continuity between psycho-cultural and biological evolution. In an inverted mirroring of integral theory’s transfiguration ($\Delta\alpha \rightarrow \Delta\theta$), demonstrated above with respect to quadrants, the identified absences in critical realism’s metatheory $\theta$ logically ripple, as an application of its own internal logics, into changes in its metatheory $\alpha$ ($\Delta\theta \rightarrow \Delta\alpha$). Notably, the analysis of critical
realism’s philosophical reflexivity in light of the epistemological insights of (a realist construal of) neo-Piagetian cognitive-developmental structures or levels arguably reveals the transcendental necessity of the integration of such an epistemic taxonomy into critical realism’s epistemology and account of itself.\textsuperscript{221} The absence of a (β) taxonomy of epistemic developmental structures like that of integral theory, by its internal logics, must be remedied through its adoption of cognitive-developmental theory, such as that of the (neo-)Piagetian stream, which is, as argued above, the most intellectually rigorous expression of ‘levels’ in integral theory’s epistemic taxonomy (Wilber, 2000a). The resulting integration turns out, as I argue in this chapter, to be more than an additive or adjunctive next step to bring more internal coherence and practical adequacy to critical realism. Rather, I argue that a developmental-structural, evolutionary epistemology is indeed a transcendental necessity in addressing critical realism’s problem field of epistemological self-consciousness and reflexivity—that is, in generating a coherent account of itself and the conditions for the possibility of its own theorizing. And this, of course, implies the absence of an account of the developmental emergence of many of the realities it theorizes about as tools of social transformation and emancipation, such as dialectical thinking and meta-reflexivity, which Stein’s (2022) “diachronic emergent powers developmentalism” also has convincingly argued for with its powerful notion of the “cognitive maturity fallacy.” In further elaborating the immanent critique I have carried out in Chapters 3 and 4, I deploy a transcendental method below, to argue that critical realism’s own internal logic necessitates the integration of a cognitive-developmental epistemic

\textsuperscript{221} The distinction between epistemic taxonomy and epistemology comes into focus here, as the former is technically a metatheory β phenomenon, while the latter connects to metatheory α. Scientific findings about the substantive realities that generate certain kinds of knowledge/skills, I argue, have bearing on formal philosophical theories of how we generate knowledge.
taxonomy and epistemology, like that of integral theory, in order to account for its own possibility and intelligibility. That is, I argue that critical realism necessarily presupposes an epistemic taxonomy of cognitive-developmental structures in its own metatheoretical activities, and therefore the adoption of a realist developmental or evolutionary ontology and epistemology that is inclusive of interiority and exteriority on the level of its metatheory $\alpha$, is a transcendental necessity.

As we have discussed, Bhaskar deployed a form of immanent critique by taking Kant’s transcendental method of argumentation and inverting it to explore not only the transcendental conditions in the mind for the possibility of science, but the transcendental conditions in the world for the possibility of science. Visionary realism builds on Bhaskar’s innovations, while attempting to integrate a transfigured understanding of Kant’s structures and categories through a metatheory $\gamma$ approach rooted in (neo-)Piagetian insight. Specifically, while Bhaskar inverted Kant’s transcendental method, I turn Bhaskar’s analysis back on itself, meta-reflexively engaging his transcendental method to demonstrate the necessary developmental-epistemic conditions for the possibility of his metatheorizing.

Integral theory developed its crucial metatheoretical construct of ‘levels’—that is, its developmental-epistemic taxonomy—through a meta-scientific (metatheory $\beta$) coding of over 100 developmental-psychological theories, as mentioned above. The epistemic structures identified by integral theory through scientific metatheorizing, based on empirical scientific theories, can also be retroduced as synthetic a priori structures. According to Bhaskar
(1979/1998), “what is presupposed in any given scientific activity is at once a possible object of scientific explanation; so what is apodictically demonstrable is also scientifically comprehensible; that is, what is synthetic a priori is also (contingently) knowable a posteriori” (p. 6). Conversely, what has been identified through scientific explanation—in this case, the epistemic structures identified by Piaget and his followers (and synoptically expounded on a meta-level by Wilber)—is also apodictically demonstrable as synthetic \textit{a priori} structures via transcendental philosophical procedure.

Again, Bhaskar’s metatheorizing took Kant’s method and inverted it, eschewing its irrealist presuppositions, and transcendentally concluding the necessary ontological conditions in the world for the possibility of scientific knowledge. Those necessary ontological conditions can be summarized as a depth ontology composed of multiple nested open systems that are differentiated, structured, and dynamically processual. That is, reality has a depth ontological structure wherein generative fields, forces, or mechanisms on the level of the real contingently actualize and dynamically concresce in actual events which contingently may be experienced.

As Bhaskar makes explicit, critical realism’s depth ontology refers to three levels of complexly related open systems—i.e., the real, the actual, and the empirical. And these systems are themselves stratified in terms of emergent levels—e.g., the physiosphere, the biosphere, and the sociosphere. Furthermore, Bhaskar argues for a non-identity between these nested systems as a totality on the level of intransitive ontology on the one hand and transitive epistemic knowledge of any facet of them on the other hand.
Thus, if Bhaskar’s philosophical metatheorizing discloses, at a minimum, multiple open systems nested within open systems, interacting in complex and dynamic ways, then one can demonstrate retroductively the necessity of (at least) a ‘metasystematic’ epistemic developmental structure, according to the model of hierarchical complexity developed by the neo-Piagetian Harvard psychologist Michael L. Commons (1989; Commons & Kjorlien, 2016; Commons et al., 1982). Metasystematic cognition, according to Commons et al. (1982), is cognition about multiple systems, and implies a general systems view of reality (see e.g., Bertalanffy, 1969). Metasystematic cognition can operate on (compare and coordinate) multiple interconnected systems, revealing their systematic interrelationships. Commons et al. (1982) define the metasystematic epistemic-developmental structure in more detail as follows:

Metasystematic operations are cognitions about systems. They are required in the formation of a framework (or ‘metasystem’) for comparing and contrasting systems with one another. The relationship of one system to another such system is expressed as a metatheory and is found by comparing axioms, theorems, or other limiting conditions of systems within the framework of a ‘super-system’ that contains all of the variant systems. Metasystematic reasoning is defined as the set of operations necessary to construct the supersystem and to execute the analysis of the systems contained therein (p. 1059).

Bhaskar’s metatheory, at a minimum, deals with the coordination of various systems of ontological depth stratification (systems of generative mechanisms on the level of the real; systems of events and patterns of events on the level of the actual; and systems of empirical experiences in their ontological declension) within a stratified set of (physical, biological, and sociological) systems; both of these distinct but overlapping systems are then contrasted and coordinated with a system of transitive epistemic construal. The objects within this system of causally efficacious forces, under a principle of systemically contextual actualization, may
contingently either express as actual events or lie dormant depending on various conditions and complex, dynamic interrelations with other objects. In the case of experimental activity, it is the scientist that acts as a causal agent (but not the underlying causal mechanism) of a sequence of events that otherwise would not have actualized. Not only can we see multiple open systemic processes in the ontological world, but we can also see that the cognitive construal of this multi-systemic external world is part of that world—a complex interior system of perception and meaning-making co-arises with and participates with that external world. From the observation and (formal operational) reflection on the sequence of events, a causal mechanism that can explain that sequence can be retroduced. To construe experimental activity as such, one must have the cognitive capacity to see, compare, and integrate multiple systems of different orders or kinds (the real, the actual, the empirical) into a higher-order meta-system (transcendental realism’s stratified depth ontology).\textsuperscript{222}

Put another way, Bhaskar’s transcendental realist arguments demonstrate that the activity of experimental science constructs a closed system to isolate variables and push generative mechanisms to obtain a linear chain of cause and effect. This, Bhaskar shows, necessarily presupposes open systems and multi-mechanicity as transfactual features of the extra-experimental intransitive world. Thus, in the meta-system of transcendental realism, we have at least two systems: 1) the closed system of linear cause and effect necessary for experimental science, inclusive of the scientist as causal agent; 2) the open system of non-linear conjunctural cause and effect of the larger world in which the closed system is embedded. Bhaskar thus

\textsuperscript{222}Note that even the construal of only the depth ontology aspect of transcendental realism arguably necessities a metasystematic cognitive structure.
constructs the system of transcendental realism, including systematically analyzing (comparing and contrasting) these systems, their structural conditions, axiomatic properties, and their relations.

Thus, Bhaskar’s metatheory, even at the simplest level of transcendental realism, constitutes (at least) such a ‘super-system.’ Transcendental realism is arguably Bhaskar’s way of naming the relationship between multiple stratified systems, comparing the conditions of these systems within a super-systemic metatheory that contains all of the variant systems. In other words, Bhaskar analyzed these systems, comparing and contrasting their properties, and constructed a higher-order metatheoretical super-system that operated on and described the relations between them. This implies that to see this complex world of systems within systems that Bhaskar describes (without any vertically reductive demi-realities), one must first develop a metasystematic cognitive structure. Therefore, transcendental realism, as a metatheory $\alpha$ in the transitive-epistemic dimension, presupposes the ontological reality of a metasystematic cognitive structure that can accurately construe the intransitive world as a system of systems in a depth ontology. Thus, a metasystematic structure can be retroduced as an intransitive ontological feature of the world.

Moreover, Commons’ (1989) stages have been represented in terms of rigorous mathematical-axiomatic formalisms by connecting each stage in a hierarchical chain of dependence, wherein

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$^{223}$ Bhaskar’s overall critical realist metatheory, however, including all three major sub-phases of basic critical realism, dialectical critical realism, and the philosophy of meta-Reality, arguably constitutes a paradigm and therefore is likely an artefact of the ‘paradigmatic’ stage in Commons’ scheme.
each later stage is emergent and therefore unilaterally dependent on its prior stage(s). Thus, the metasystematic structure presupposes and necessitates all the earlier stages of hierarchical complexity. Thus, in a chain of retroductive inference, we can say that Commons’ neo-Piagetian model of hierarchical complexity and the invariant evolutionary sequence of increasing cognitive complexity it discloses turns out to be a necessary ontological presupposition for the possibility and intelligibility of transcendental realism as articulated by Bhaskar.

As I have demonstrated, metasystematic cognitive operations are a necessary ontological condition for the possibility of Bhaskar’s metatheoretical activities in analyzing the activities of experimental science. Thus, when we ask: ‘What must the world (understood as constellationally containing the mind) be like for the activity of Bhaskar’s transcendental inquiry to be possible?’ we might answer that question first by saying ‘It must be a world in which metasystematic cognitive operations exist as an intransitive ontological object that can be deployed for transitive epistemic construal.’ Further, it must be a world that is not only ontologically structured, stratified, changing, and existing independently of knowledge about it, as transcendental realism would have it, but also an ontological world that is epistemically structured, stratified, and evolving in terms of cognitive complexity.

Here we can start to see how a visionary realist metatheory brings together the evolutionary developmental-structuralism of integral theory’s epistemic taxonomy with transcendental realism and critical naturalism in a systematic way. That is, as I have contended above, visionary realism emerges out of a sublation of integral theory and critical realism, drawing on immanent
and transcendental critique. In this chapter I have outlined the contours of a transcendental argument that analyzes the presuppositions of Bhaskar’s metatheoretical activities. The conclusions of this transcendental argument further buttress my claim that visionary realism is not eclectic or arbitrary, but rather an immanent and transcendental critique and systematic sublation of integral theory and critical realism. Specifically, with respect to CR’s transcendental realism, I argue that its own explicit internal commitments (i.e., to a developing integrative pluralism and the critical realist embrace, which ongoingly incorporates and coheres with valid scientific findings, as well as CR’s commitment to seriousness, or the coherence of theory and practice, reflexivity, or CR’s ability to sustain a coherent account of itself, and auto-critique, or immanent self-critique) necessitate the further development of its epistemology, building on the insights of developmental-structural psychology to rethink the epistemic categories needed for an adequate metatheoretical construal of the world. But here I endeavour to ‘complete the circle’ by showing how critical realism’s epistemological development through the integration of integral theory’s \textit{a posteriori} epistemic taxonomy can also be retroduced to be synthetic \textit{a priori} by analyzing the presuppositions of transcendental realism. This argument, if valid, would show that not only is this integration of developmental-structural insights into critical realism’s scientific ontology a logical next step in critical realism’s further development, but also that these cognitive developmental structures are \textit{a priori necessary conditions for its possibility and intelligibility} on the level of philosophical ontology. Thus, for critical realism to sustain a coherent reflexive account of itself, it necessarily must be the case that there are ontologically or transfactualy \textit{real} structures and categories of the mind that develop in an invariant
sequence defined by emergent strata of hierarchical cognitive complexity as delineated by Commons et al. (1984).

The transcendental argument I have made above concerning the conditions for the possibility of Bhaskar’s metatheoretical activities in establishing transcendental realism does several things. Firstly, it lends credence, in effect, to the ontologically objective nature of the structures of interiority generally, reclaiming its capture by subjective idealism in its myriad guises. As I discuss below, interiority cannot be reduced to subjectivity (nor intersubjectivity), but rather is on equal ontological footing with the structures of exteriority. Again, they are both equally real, and their construal is equally mediated by the epistemic structures of the knower. Secondly, the transcendental argument that visionary realism makes arguably augments critical realism’s depth ontology to include a developmental or evolutionary element. In other words, while basic critical realism’s depth ontology articulates an open-systemic world structured in terms of three differentiated strata (the real, the actual, and the empirical) that are changing, visionary realism’s depth ontology integrates a Piagetian notion of a dialectical interior-exterior social evolution or equilibration, resulting in an open-systemic world that is structured, differentiated, and integrally evolving. Finally, visionary realism’s transcendental evolutionary realism implies a transcendental refutation. Transcendental refutation is a form of critique that is tasked with the analysis of what is given or presupposed in practice yet is denied or reflexively incoherent in theory. My above transcendental argument for the transcendental necessity of a developmental epistemology arguably demonstrates that a developmental epistemology is presupposed in the practice of Bhaskar’s metatheoretical activities, yet it is reflexively
incoherent with critical realism in its present theoretical form. Thus, my transcendental argument for an ontological grounding to interiority and cognitive evolution is also a transcendental refutation of critical realism in its current state and signals the need for its visionary realist resolution.

For visionary realism, following Piaget, the evolutionary trajectories of organisms are governed by attractors or causal mechanisms that confer a tendential directionality towards the equilibration between organisms and their environment, including an equilibration between epistemic construals and objective realities such that the reality of the objective dynamics and demands of the environment (including interiority and exteriority) align with their subjective epistemic construal in the organism. This evolutionary ontology not only arguably helps resolve some key problematics for critical realism concerning the problem of epistemological self-consciousness and philosophical reflexivity, it also deploys secular transcendental methods that might help reweave the human into the fabric of the cosmos once again. As Stein (2018b) eloquently puts it,

> Evolutionary explanations give a deeper, broader, and more coherent sense of the reality of the human experience, which is today too often characterized as if it were merely a social construction. I believe that it is actually impossible to live in a culture and with an identity that reflectively takes itself as an arbitrary and meaningless construction. Humans need to orient around a sense of the world and their place in it that they believe is true. This means looking at the realities that underlie both the natural world and the human lifeworld (p. 212).

Visionary realism’s evolutionary ontology thus contributes to a deeper, broader, and more coherent sense of the reality of human interiority and its seamlessness with the rest of the natural world. It also provides the philosophical infrastructure needed to understand that a sense of alethic resonance, continuity, and expressive symmetry
between knowing and being—between the human lifeworld and the natural world—is a crucial condition for basic socio-ecological health, let alone planetary flourishing. Having articulated visionary realism’s pandimensional realism and transcendental evolutionary realism, I will now offer a synoptic overview of visionary realism and its key elements or principles.

**Visionary Realism: A Synoptic Overview**

Visionary realism is a ‘next-generation’ metamodern metatheory born from the nexus of critical realism and integral theory. It is an integrated metatheory that is at once philosophical (α) and scientific (β). By deploying methods of hermeneutical dialectics vis-à-vis integral theory and critical realism, as well as immanent critique and transcendental critique, visionary realism essentially follows the identified contradictions and absences in each of these metatheories to their logical conclusions. The emergent visionary realist ontology and epistemology reveal a cosmos characterized by open systems wherein deep structures, mechanisms, attractors, and morphogenetic fields generate the ongoing flux or concrescence of phenomena in an open, creative, emergent, and participatory evolutionary process. This process of morphogenesis and evolution in an open-systemic world is complex and conjunctural—and includes real causal generator functions on the level of both interiority and exteriority (consciousness and matter). The actual evolutionary trajectory of the unfolding of reality is thus radically contingent, in contrast to integral theory’s general view. Visionary realism underscores the asymmetrical-dialectical unity of the human (nature₂) and non-human (nature₁) aspects of the world.

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It can be considered next-gen in the sense that it is born out of metatheoretical dialectic between integral theory and critical realism, which are themselves first-generation metamodern metatheories.
Considering the principles or criteria for an integrative metatheory 2.0 set forth in Chapters 1 and 2, I will now briefly describe the ways in which visionary realism aligns with them, while including three additional principles that emerged through my hermeneutical dialectical inquiry into how the most advanced extant metatheories—viz., critical realism and integral theory—offer intellectual resources for formulating a more adequate metatheory of the metacrisis.

Integrative metatheory 2.0, specifies its definition as theory about (above or below) theory, grounded in the following four principles or criteria: 1) ontological realism and comprehensiveness; 2) epistemic relativity and reflexivity; 3) methodological transparency and judgemental rationality; 4) integrative pluralism. Visionary realism meets these criteria for an integrative metatheory 2.0, while also adding three more: 5) emancipatory; 6) visionary; and 7) evolutionary. These additional principles emerged through a deep examination of the principles underlying critical realism, integral theory, and their sublation in a visionary realism. It is important to note that these principles are more than an atomistic list of concepts; they are systemically interrelated and generally hang together in a holistic ecology such that they are to some extent co-causal and interdependent. For example, judgemental rationality is sustained by ontological realism and epistemic relativity and reflexivity and would be meaningless without them.

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225 Various other interrelated principles or criteria could be proposed, including a focus on the scholarship of integration (Boyer, 1990), a post-formal or dialectical mode of thought, and a break with the characteristically post/modern bias toward anthropism or anthroporealism, to name but a few.
Visionary realism is an *ontological realism*, which is the view, established by Bhaskar’s transcendental methodology, that objects of inquiry are absolutely intransitive existentially in relation to the investigator and relatively intransitive causally (regardless of whether the object is natural or social, interior or exterior, individual or collective). In other words, the objects of investigation exist (relatively or absolutely) independently of our thought, knowledge, or discourse about them—‘things’ exist even if they remain dormant as unactualized potentials or no one is there to empirically verify the existence or their actual manifestation as concrete events. Accurate knowledge or alethically true expressive representation of a thing is always in principle possible, even if that knowledge or representation is fallible, partial, and ever open to falsification/critique—metatheories can likewise participate with reality in adequately referring to and simultaneously expressing truths in the world. In this way, visionary realism argues for the potential of human knowing to co-creatively express an alethically true self-reflexive actualization of any object or reality.

*Ontological comprehensiveness* refers to the aspiration to include all essential dimensions, planes or contours of reality known to humans—including real generative mechanisms and structures—in the purview of one’s metatheorizing. Taken together with ontological realism, we get an (‘all-quadrant’) or pandimensional realism, as discussed above, wherein real intransitive objects exist in all dimensions of reality (i.e., interior, exterior, individual, and collective). This includes, again, objectively real structures and mechanisms in the realms of interiority, in contrast to the subjectivization of interiority—that is, the reductionism of consciousness and culture to (inter)subjectivity à la neo-Kantian irrealism. Epistemically, this
does not necessarily mean a visionary realist approach would be substantively integrating
theory from all of these quadrants or domains per se, but rather that all these domains and
their associated theories are considered and one’s metatheorizing situated within this
context—in other words, one’s metatheorizing is open to and consistent with valid findings
from these domains. Along these lines, Esbjörn-Hargens (2016) distinguishes between
metatheory as a ‘theory of everything,’ a totalizing frame that Wilber (1996, 2000b) has
accentuated with respect to integral theory, and metatheory as ‘a theory of anything,’
signifying that “it can be used in any context with any content but that it does not necessarily
include or account for all of reality in spite of its desire to do so and to be a robust framework
that can support that intention” (p. 111). Theories, from the vantage point of ontological
comprehensiveness, represent partial truths to be systematically transfigured and synthesized
into a coherent metatheoretical vision of reality. As Gödel’s (1931/1992) incompleteness
theorem states, a logical or conceptual system can either be complete or consistent, but not
both. This implies that, because we live in a dynamic, open-systemic world, integrative
metatheories can strive for ontological comprehensiveness or completeness (and, of course,
consistency), but it is an ever-receding horizon. As Gary P. Hampson (2010b, p. 20) puts it,
because “integration or coherence should be understood in relation to its Other, its dialectic:
dispersion, nebulosity, indeterminacy, tentativity,” increasingly ‘meta’ moves of reflexivity and
dialectical engagement beyond the field of a given metatheory are needed for knowledge to
progress toward greater coherence and comprehensiveness. Within the principle of ontological
comprehensiveness there is deep epistemic humility: ‘properly’ consistent and comprehensive
metatheory is strictly impossible. Gödel’s theorem does much to protect against tendencies
towards a mode of ‘grand’ metatheorizing that pursues a closed, totalizing system. Rather, visionary realism understands that “the total system is Gödelian in nature: it is forever open” (Nicolescu, 2008, p. 11), thereby pursuing ontological comprehensiveness by pursuing a forever incomplete, increasingly inclusive open totality (P. A. Marshall, 2016b; Nicolescu, 1998). It should likewise be noted that some objects may themselves possess characteristics of ontological indeterminacy, especially hyperobjects (Morton, 2013), such as pandemics or climate change. Ontological indeterminacy stands in contrast to—while often overlapping with—epistemic inadequacy, relativity, or fallibility. Some objects (e.g., the metacrisis, the simultaneous position and momentum of a sub-atomic particle), visionary realism argues, are inherently ontologically indeterminate at least in the sense of comprehensiveness—the object itself evades determinate comprehensive disclosure. This implies that uncertainty is both epistemically and ontologically inexorable without succumbing to a kind of epistemic pessimism or nihilism (or its dialectical pair of epistemic hubris), but valid and alethically true knowledge can indeed be approached probabilistically and asymptotically through the principle of alethic resonance.

Epistemic relativity refers to the understanding that all knowledge is socially, historically, and linguistically mediated. Knowledge is a contingent and geo-historically situated social product, causally interdependent with the knowing agent (including their presuppositions, aims, and values), and very much subject to contestation, error, and change. Knowledge is never incontestably certain and therefore must be conceived of in terms of epistemic fallibility and a degree of uncertainty. The world can only be known within specific historically transitive and
therefore relative descriptions and explanations, ever open to critique in light of appropriate validity criteria. Knowledge has no ultimate foundations or valid first principles, but reality can, in principle, be provisionally approximated and progressively approached asymptotically via rigorous epistemic-cultural verification practices, which can lay claim to epistemic objectivity. Epistemic relativity stands in contra-distinction to extreme epistemic relativism or constructivism, as it is balanced by the principle of ontological realism, which transcendentally argues that there is a reality and a truth of things, even if it is indirectly accessible for human knowing; uncertain; or inexhaustibly complex and mysterious. Epistemic relativity and fallibility implies a necessary epistemic humility that in turn implies curiosity, indefinite openness to being wrong in whole or part, and a dedication to continual inquiry, engagement, and learning. This is the understanding that while we strive to be compressive and accurate, knowledge is always an open system, and admitting this affords the possibility of high-quality knowledge, rather than abandoning it. It is important to note that epistemic relativity in no way negates the possibility and necessity of truth, facts, and valid universalizable knowledge. Finally, visionary realism’s epistemic relativity is distinct from that of critical realism, in that for visionary realism it is understood to be transcendentally situated within a developmental-structural or evolutionary epistemology. Thus, how we know is mediated and relativized by an invariant evolutionary sequence of hierarchical cognitive complexity, as disclosed in neo-Piagetian theory. Visionary realism’s evolutionary epistemology also includes the idea of vertically reductive demi-realities, highlighting that certain phenomena or objects express a complexity that is intrinsic to their ontological structure, and that structure can exceed the task demands of one’s epistemic structure, leading to reductive or false but nonetheless real construals.
In addition, visionary realism engages a robust *epistemic reflexivity* in relation to the assumptions and salient epistemic structures of the research—a kind of researching the researcher (Hedlund, 2008)—so as to both situate one’s knowledge claims therein and potentially mitigate problems of inter-individual epistemic-hermeneutic variability (Hedlund, 2008, 2010b). Epistemic reflexivity (and methodological transparency) also enriches the dialogical process connected to the final stage of the research process—that of social validation. Given our epistemic fallibility as embodied personalities engaged in epistemically relative inquiries, one function of such practices is to enhance the peer-review process surrounding the relative validity, utility, strengths, and limitations of the knowledge claims of a given researcher. In the absence of reflexive epistemic transparency, it can be rather difficult to assess aspects of the relative validity of the ‘view from nowhere’ that many researchers implicitly assume (M. G. Edwards, 2010; Nagel, 1986). Some of my epistemic biases as a researcher are discussed in previous publications (Hedlund, 2008, 2010b).

*Methodological transparency* refers to the reflexive disclosure of the methodology and methods (or injunctions) from which knowledge claims are derived. Thus, visionary realism adheres to a procedural rationality or methodological transparency that is open to ongoing rigorous assessment or criticism in terms of clearly defined validity criteria. Moreover, it sustains the possibility of judgemental rationalism, which will in general depend on ethical reflexivity and responsibility, in the context of the actuality of epistemic relativity and the necessity of ontological realism. Visionary realism, as a metatheory γ, highlights the importance
of methodological transparency in metatheorizing (whether $\alpha$ or $\beta$), as I have attempted to do in the ‘philosophical methodology’ section of the introductory chapter, to complement its institutionalized practice in empirical science.

Further, visionary realism is an integrative pluralism, as opposed to an integrative monism (as in ‘old school metatheory’), vis-à-vis the problem of theoretical pluralism. Integrative pluralism has two declensions, epistemological (emphasized by integral theory) and ontological (highlighted by critical realism). Its epistemological declension has to do with the problem of theoretical pluralism (for example, in the social sciences), and two distinct meanings of the notion of ‘integration’ that correspond to monistic and pluralistic modes of integration, respectively. The monistic approach of ‘old school’ metatheory attempts to assert a singular, totalizing, abstract, and universal overarching theory that does not adequately accommodate either for competing perspectives or the real depth and diversity of the world. It homogenizes the diversity of theories into a univocal, hegemonic perspective that fails to honour the autonomy and integrity of each theory in its own right. In this context, integrative monism is essentially a modernist approach that attempts to forge a totalizing super-theory that supplants and reductively marginalizes other theories, sometimes under the guise of ‘integration.’ In contrast, integrative pluralism in its epistemological mode “retains an appreciation for the multiplicity of perspectives while also developing new knowledge that connects their definitive elements to build more expansive, ‘roomier’ metatheoretical frameworks” (M. G. Edwards, 2010, p. 16). It takes an approach of weaving together a multiplicity of theoretical perspectives into an emergent, heterogenous identity-in-difference or unity-in-diversity (unitas multiplex),
rather than a kind of erasure or fusion of difference and the reduction of the complex multiplicity to simple unity.

William James (1909/1977), responding to the integrative monism prevalent in his lifetime, emphasized the connection between integrative pluralism in its epistemological inflection and epistemic fallibility:

Things are ‘with’ one another in many ways, but nothing includes everything, or dominates over everything. The word ‘and’ trails along after every sentence. Something always escapes. ‘Ever not quite’ has to be said of the best attempts made anywhere in the universe at attaining all-inclusiveness. The pluralistic world is thus more like a federal republic than like an empire or a kingdom. However much may be collected, however much may report itself as present at any effective centre of consciousness or action, something else is self-governed and absent and unreduced to unity (p. 148).

This distinction between the epistemic hubris and claims of inerrancy implicit in a reductionistic, monistic mode of integration and an epistemically humble anti-reductionist, pluralistic one is a crucial part of what integrative pluralism refers to. Moreover, James’ simile comparing an (integrative) pluralistic world to a federal republic that stands in contrast to an (integrative monistic) empire or kingdom is illuminating. The United States, for example, strives, albeit problematically, to embody a socio-political integrative pluralism with regard to the union of its relatively autonomous states, as is expressed in its Latin motto E pluribus unum (‘out of many, one’). Both authoritarian empires (integrative monism) and democratic federal republics (integrative pluralism) are ‘integrative’; yet the former hegemonically crushes pluralism while the latter respects the diversity while linking it into a unity-in-diversity. Such a difference is also a primary element of what is signified by integrative metatheory 2.0: it is centrally pluralistic in its approach to integration by including the partial truths represented by
other theories and metatheories with a sensibility of epistemic humility. As M. G. Edwards (2010) puts it:

Global problems of the scale that we currently face require a response that can navigate through theoretical pluralism and not be swallowed up by it. In saying that, twenty-first-century metatheories will need to be different from the monistic, grand theories of the past. They will have to be integrative rather than totalising, pluralistic rather than monistic, based on science and not only on philosophy, methodical rather than idiosyncratic, find inspiration in theories from the edge more than from the centre and provide means for inventing new ways of understanding as much as new technologies (p. 223).

Thus, the ‘integrative’ in integrative metatheory 2.0 refers to a pluralistic and fallibilistic mode of integration that visionary realism concretely instantiates.

In its ontological declension, which is inspired by critical realism, integrative pluralism (or developing integrative pluralism) is also and most fundamentally another name for a maximally inclusive philosophical depth ontology that grasps the world as asymmetrically stratified and differentiated, dynamic, and interconnected (Bhaskar, 1986/2009, p. 101). Such an ontological inflection of integrative pluralism underpins the possibility of epistemological integrative pluralism such that ontological realism and epistemological relativity can intelligibly co-exist.

Indeed, without a realist depth ontology there can be no epistemological integrative pluralism, leaving only epistemological dogmatism and monism as an alternative.226 Visionary realism, as specified above, must necessarily be ontologically realist and epistemologically relativist and fallibilist, which denotes the possibility of error and illusion. Such a (critical) realist framework thus goes beyond the tendency toward ontological monovalence that can be seen in

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226 As Bhaskar (1986/2009) puts it, “On the new, integrative-pluralistic world-view which emerges, both nature and the sciences (and the sciences in nature) appear as stratified and differentiated, interconnected and developing” (p. 101).
epistemologically oriented approaches to integrative pluralism (see e.g., Wilber, 2006) that invoke negativity merely in terms of partiality. In other words, they shy away from or gloss over the critique of proper errors or falsehoods in the assessment of first-order theories. In contrast, integrative metatheorists such as Aurobindo (1949/1990) and Bhaskar (1993/2008, 1994/2009), for example, have forged integrative pluralisms that include valid truths from multiple perspectives or meta/theories, while embracing the necessity of critique and negative transfiguration in light of ontological realism. Following this dialectically negative stream of metatheorizing, visionary realism adheres to an integrative pluralism which holds that one of the functions of metatheory is the critique of false or erroneous elements within a theory. Without this ontological negativity and bivalence, integrative pluralism can devolve into a mode of preservative synthesis that ends up producing purely cumulative ‘heaps’ of truth lumped in with false, demi-realities (under the guise of honouring and including ‘partial truths’), rather than a transfigured and coherently coordinated meta-level approximation of alethic truth (that in practice can metacritically extract and integrate enduring, non-contradictory truths).

Visionary realism is also emancipatory in that it seeks, on every level, to identify and remove the demi-realities, blockages, and real causes of alienation, oppression, and social pathology, in theory and practice. In the domain of metatheory α, visionary realism seeks emancipation on a more abstract, general, and philosophical level through philosophical underlabouring. Philosophical underlabouring refers to the aforementioned conception of metatheory as ‘theory below theory,’ since it addresses the ground or foundations upon which knowledge is built, principally in the domain of the philosophy of science. Underlabouring is a notion critical
realism borrows from the eighteenth-century British empiricist philosopher John Locke (as cited in Bhaskar, 2016), who wrote that: “it is ambition enough to be employed as an under-labourer, in clearing the ground a little, and removing some of rubbish that lies in the way of knowledge” (p. 2). On the level of philosophical underlabouring, visionary realism is emancipatory in the sense of aspiring to clear the ground and remove the philosophical-ideological rubbish or obstacles to producing genuine or alethic knowledge and interrelated social praxis.

Philosophical underlabouring is not concerned with master system building, universal foundationalism, first principles, or substantive science (directly), but rather is tasked with shedding the impediments to high-quality sensemaking, intellectual clarity, coherence, and reflexivity. Critical realism diverges from the positivist conception of philosophical metatheory (metatheory $\alpha$) in proposing that its role is not only related to conceptual and linguistic clarification, but also is practical and emancipatory. Metatheoretical underlabouring seeks to clear the intellectual rubbish or demi-realities for science generally, and the social sciences particularly, as well as emancipatory praxis in service of well-being and planetary flourishing (Bhaskar, 2016a, p. 2). In this way, underlabouring aims to articulate the general categorial conditions for the possibility of practice, identifying theory–practice inconsistencies and supporting theory–practice unification.

Visionary realism is likewise emancipatory on the level of what I call metatheoretical overlabouring; that is, on the level of metatheory $\beta$, it is tasked with critically assessing the findings of science from a normative point of view, including their accurate and coherent construal relative to the philosophical underlabouring (metatheory $\alpha$) that it presupposes. It
also analyzes the general conceptual frameworks of first-order scientific research and practical programmes and subjects them to critical scrutiny on a paradigmatic level. And finally, metatheoretical overlabouring synthesizes and integrates, in systematic and commensurable ways that accord with given metatheoretical constructs, their findings in the context of interdisciplinarity and complex open systems. Only metatheory in its overlabouring capacity can adjudicate the complex methodological questions of interdisciplinary enquiry that necessarily supersede the relatively partial and myopic nature of disciplinary lenses (see integral theory’s integral methodological pluralism and critical realism’s critical methodological pluralism for examples of this overlabouring function in the context of scientific methodology). What, if not metatheory, can disclose and justify the systematic interrelationships between the various methodologies and disciplines of human enquiry? It should be noted here that this overlabouring function of metatheory can crucially defend against various theoretical reductionisms, as visionary realism has sought to do throughout this thesis.

Visionary realism, as the name implies, underscores a **visionary** principle of metatheorizing in that its ultimate aim is the cultivation of phronesis or situated practical wisdom about how and why society ought to transform towards eudaimonia. In service of this aim, it engages in the practice of **concrete utopianism**\(^{227}\) (Archer, 2019; Bhaskar, 1994/2009, 2016a; Bloch,

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\(^{227}\) The word ‘utopia’ was coined from ancient Greek in 1516 by Sir Thomas More in his novel of the same name (More, 1516/2012). The word literally means ‘no-place’ or a non-existent community or society. The idea of a concrete utopia augments this notion to refer to real social possibilities that remain unactualized. And the idea of a **euphoria** refers to a place in which real potentials for greater well-being or flourishing are actualized and experienced. Thus, utopia connotes to abstract visions for a better world, concrete utopia represents concrete, substantive, and actualizable visions for a better world, and euphoria represents the actualization of concrete utopian visions in events and experiences. Freinacht (2019) also discusses the idea of **relative utopia**, which suggests an improvement relative to some concrete geo-historical circumstance, while inviting us to think outside
1919/2000; Wright, 2010), or simply eutopianism,\textsuperscript{228} which forges realistic or relative utopian visions and grounded, plausible theories of transition or transformation from the present state of affairs or status quo to future possibilities for flourishing. What distinguishes such eutopianism from naïve or wishful thinking is precisely its concreteness: concrete eutopianism involves a kind of bootstrapping that aims to identify realistically \textit{realizable} possibilities that could be actualized in the face of substantive, real-world constraints, as opposed to possibilities in an abstract or formal sense. It delimits visionary possibilities within the parameters of the (often complex and difficult) constraints of applied practice (such as ecological planetary boundaries), seeking to manifest “the real but non-actualised possibilities inherent in a situation, thus inspiring grounded hope to inform emancipatory praxis” (Bhaskar, 1994/2009, p. 112). The \textit{visionary} principle of visionary realism draws on faculties of the real human imagination and phronesis, in alethic resonance with the boundary conditions set forth by the field of nature, to envision human and planetary potentials for well-being, sustainability, flourishing, and—ultimately—collective actualization in a eudaimonistic society. Visionary realism is needed to broaden our eutopian imagination and forge new ideas about our collective potentials as human beings, our collective purpose, and the conditions for our universal free flourishing. Such a visionary function also goes beyond the descriptive and normative to include the aesthetic. That is, we need bold, new visionary meta-perspectives that are not only true and morally compelling, but also beautiful and inspiring—touching the human

\textsuperscript{228} Eutopia implies a shift from the abstract notion of u-topia to a concrete notion that is situated in a geo-historical trajectory—a place of ‘well-being’ or flourishing. See, for example, the integral stage’s series on ‘eutopia’ at www.youtube.com/channel/UCaA4zkLRnR3tIGm8Y7c5Tvdw
heart and soul and emboldening right action. When in alignment with the alethic truth of nature, metatheories hold the potential to activate the absence-driven evolutionary energy of Eros or the ‘pulse of freedom’ as Bhaskar (1993/2008) would call it, in the specific sense of the force that redresses real determinate absences and undergirds evolutionary transcendence and innovation, thus becoming a hermeneutic attractor that lures humanity toward the actualization of its own potentials. “The power that creates the ideal image of a community,” writes the visionary sociologist Dieter Duhm (2015), “is the same power that initiates the corresponding changes in the community. The power generating the vision is identical to the power that will manifest it. This is not ‘my’ power, but that of the spiritual meta-world” (p. 95).

The Zegg Community in Germany and the Tamera community in Portugal, both of which Duhm co-founded, arguably serve as important instantiations of the power of such concrete eutopianism in praxis. Moreover, Zachary Stein’s (2019a) sweeping metatheoretical work on education offers a powerful exemplar of such visionary, concrete eutopianism on the future of schools, technology, and society in the face of contemporary planetary crises that, if implemented, would constitute a radical shift in schooling and could spark an educational renaissance.

Finally, visionary realism is evolutionary. With its pandimensional evolutionary realist ontology, grounded in an argument for its transcendental necessity, as expounded earlier in this chapter, visionary realism asserts the reality of cognitive development on a psychological and cultural level, while subscribing to a neo-Piagetian, integrated bio-psycho-social vision of evolution. This evolutionary view helps to integrate all of the above elements or principles into an overarching
view of the human in a dialectical-evolutionary dance of inquiry, listening, attunement, and
dynamic steering towards a Piagetian sense of ‘equilibration,’ which is taken up by visionary
realism under the guise of alethic resonance between the human lifeworld (nature₂) and the
natural world (nature₁). Visionary realism argues that ultimately there is no separation between
humans and nature; we are nature endowed with emergent powers of self-reflexive mind to
envision and create real imaginal and social worlds, albeit with varying degrees of expressive
alignment or resonance with ontological truth.

Having sketched a synoptic overview of visionary realism in its primary elements, I will bring
this chapter to a close with some concluding remarks on its value in the context of addressing
the metacrisis and supporting the emergence of a eudaimonistic society.

**Visionary Realism and Planetary Flourishing**

As Bhaskar (1997) powerfully underscores, the problems and splits of philosophy and
metatheory are not merely abstract ‘arm chair’ concerns, but rather are indicative of much
more profound alienations and pathologies in relation to the social and natural world. The
metacrisis, on a root level, ought to be understood in terms of a culturally sedimented, demi-
real split or collapse between ontology and epistemology, between being and thought,
between the world (nature₁) and the human mind (nature₂). Thus, rethinking the relation
between world and mind, being and knowing, without dissociating (à la modernism) or
collapsing (à la post-modernism) the poles of Kant’s transcendental dialectic appears to be at
the very crux of the metacrisis. While the metacrisis is clearly the result of deeply multivalent,
holistic causality, this core relation, in my analysis, seems to be among the most radical or root-level forces in the metacrisis system, arguably supervening on both the epistemic sensemaking crisis and the existential meaning crisis. In other words, without a complex, coherent, and compelling account of the relation between ontology and epistemology, interiority and exteriority, we will not be able to effectively address the epistemic crisis. As I have argued, the epistemic crisis is rooted in the misconceived problem fields of these relations, particularly that of irrealism (which cuts across both modern positivism and postmodern constructivism). Furthermore, because what is real is inseparable from what is good and meaningful in an ontological-axiological chain, addressing the epistemic sensemaking crisis is intrinsically linked to, and a prerequisite for, addressing the existential meaning crisis. Philosophical irrealism and its demi-real construal of the relations between world and mind (whether in its split or collapsed guise), which hopefully is becoming clearer at this point, is arguably the largely hidden generator function or deep code undergirding the metacrisis.

Kant stands at the very fulcrum of these two forms of irrealism and is arguably the central philosopher of the post/modern era to be reckoned with, along with Hume, from which Kant inherited his flat empirical realist ontology. While both of the poles of the irrealist worldview are ridden with error, contradiction, and absence, they also both have made important (partial) contributions to the quest for knowledge and wisdom. Taken as totalizing, monistic perspectives, they are both profoundly problematic and geo-historically anachronistic. However, deploying Plato’s notion of metaxy (the in between and beyond), we are collectively groping, I believe, for a metaxical integration of these views. We must thus think, with and
beyond Kant, in the quest for the elusive *between and beyond* that repositions the human mind within the world—knowing within being—in a complex, dialectical unity. Chapters 3 through 5 of this thesis aimed to provide a provisional outline of the terms of such an asymmetrical (re-)unification of mind and world through a metaxical synthesis of the metatheoretical foundations of both critical realism and integral theory in a visionary realism. Thus, visionary realism is itself an attempt to identify and rethink the core problem field at the nexus of mind and world, epistemology and ontology, humanity (nature$_2$) and nature (nature$_1$), underlabouring for high-quality sensemaking and meaning-making with respect to the metacrisis (and beyond). In this way, visionary realism is an attempt to address the very crux of the metacrisis on a deep philosophical, psychological, and cultural level, forging a new vision of humanity-in-and-as-nature, aiming to curate the conditions for the possibility of the emergence of a eudaimonistic planetary society. Having articulated the metatheoretical infrastructure of visionary realism, I will now look closer at the metacrisis in an attempt to explore and demonstrate the relevance and value of a visionary realist metatheory in praxis.
CHAPTER 6—From the Metacrisis to the Eudaimonistic Society

There is the world that we create and there is the world that has created us. These two worlds must come together. This is the goal of our journey.

Dieter Duhm

After the mutual critique and synthesis of critical realism and integral theory carried out in Chapters 3, 4, and 5 of this thesis, I now turn towards the application of visionary realism to addressing the metacrisis more substantively, pointing to its value in providing a framework that supports a more adequate understanding and response to it. Thus, in this chapter, I will analyze the metacrisis in more depth, highlighting how its complex, holistic nature demands accordingly complex and holistic solution patterns. I then sketch the contours of a general visionary realist response that functions as a philosophical and cultural underlabouring for the holistic transformations needed to move towards a eudaimonistic society. In keeping with the key sub-aims of this thesis, articulated in Chapter 1, I emphasize the often overlooked philosophical, cultural, psychological, and spiritual mechanisms implicated in the metacrisis, trying to make adequate sense and meaning of this impossibly complex ‘hyperobject’ (Morton, 2013) that is the metacrisis. Namely, I introduce the key notion of alethic resonance between world and worldview—being and knowledge—as the central organizing meta-principle whereby human societies can address the metacrisis and move increasingly towards a eudaimonistic society. I argue that a visionary realist perspective offers new intellectual resources that can be deployed for high-quality collective sensemaking and meaning-making in the face of our complex, planetary challenges, aiming to address the epistemic and existential aspects of the

229 See www.tamera.org/healing-biotopes-plan/
metacrisis on the level of aetiology. I begin by looking at some leading concepts of the world situation on the way to a more in-depth articulation of the metacrisis.

*Hypercomplexity, Wicked Problems, and the Metacrisis*

The emergent global context, scale, and profound interdependency of many of our contemporary ecological and social problems have led theorists to coin a range of neologisms to underscore their novelty, urgency, and often their complex, systemic nature. According to Scharmer (2009), many of these issues can better be conceptualized as “hypercomplex problems.” Such problems are characterized by the following three features: *dynamic complexity* (defined by cause and effect being distant in space and time); *social complexity* (defined by divergent and often conflicting interests, cultures, and worldviews among diverse stakeholders); and *emerging complexity* (defined by disruptive patterns of innovation and change in situations in which the future cannot be predicted and addressed by the patterns of the past). From a more philosophical vantage point, Timothy Morton (2010, 2013) discusses a notion resonant to that of Scharmer’s ‘hypercomplexity,’ which he refers to as ‘hyperobjects.’ For Morton, hyperobjects are highly dispersed in time and space (dynamic complexity) such that they go beyond spatio-temporal specificity and thus redefine traditional notions of objects or things. Morton mentions climate change as a prime example of a hyperobject.

Similarly, other theorists, such as Hulme (2009), use the term ‘wicked problems’ in an attempt to illuminate the novel and dynamic qualities of complexity associated with many of our twenty-first century challenges, such as climate change. The notion of ‘wicked problems,’
introduced by Rittel and Webber (1973), was used originally in social planning to describe problems that, in contrast to ‘tame problems’ with clearly defined and achievable end-states, are resistant to simple resolution due to the complex, open-systemic interdependencies of its multiple natural and social facets as they dynamically morph, reconfigure into emergent relational networks, and feed back on each other in complex, non-linear ways. The term ‘wicked’ is used, not in the sense of evil or any other normative judgement, but rather to refer to their intractability or resistance to simple resolution. The more general notion of a global problem field constituted by the interaction of a set of systemically interlinked global problems dates back to a 1970 Club of Rome report entitled Predicament of Mankind (Özbekhan, 1970) that distinguished approximately 50 “continuous critical problems” facing humanity, arguing that they are strongly interconnected and thereby contribute to the emergence of a new ‘meta-problem’ they referred to as the “global problematique.” As the report states:

> the fragmentation of reality into closed and well bounded problems creates a new problem whose solution is clearly beyond the scope of the concepts we customarily employ. It is this generalized meta-problem (or meta-system of problems) which we have called and shall continue to call the ‘problematique’ that inheres in our situation (Özbekhan, 1970, p. 13, my emphasis).

Other theorists, such as Edgar Morin (1999), refer to the multiplicity of interrelated problems as the “poly-crisis.” Morin’s emphasizes that ‘complex thought’ (something roughly akin to post-formal, metasystematic cognition), is urgently needed if we are to make adequate sense of the poly-crisis. Our present world situation has also been referred to as the Anthropocene, a proposed new geological epoch popularized by the Dutch Nobel Prize winning atmospheric

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230 The Club of Rome report ”Predicament of Mankind” was drafted by Hasan Özbekhan and included contributions from Aurelio Peccei, Aleco Christakis, and Erich Jantsch.

231 It is worth noting that Daniel Pinchbeck (2017) refers to something generally resonant with the notion of the poly-crisis as a “mega-crisis.”
chemist Paul Crutzen (Crutzen & Stoermer, 2000). This concept signifies a new Earth systems regime marked by the profound and far-reaching causal power of human social life in shaping the evolutionary trajectory of Earth systems processes (see e.g., Steffen et al., 2015a). This new epoch contrasts with previous epochs, which have been identified by stratigraphic and fossil data, the most recent being the generally hospitable and climatically stable Holocene.

Bhaskar and other critical realists refer to our multifaceted predicament as a “crisis system” (Bhaskar, 2016a, p. 204; Naess & Price, 2016), resonating strongly with the notion of the poly-crisis and the global problematique. As Bhaskar (2016a) puts it:

> it is clear that in the contemporary world we are faced with a situation of global crisis, or indeed concatenated global crises; so much so that one could talk of this poly-crisis as a crisis system. One can identify the contours of this crisis at each of the four planes of social being. Most striking is perhaps the crisis of the four e’s. Thus, on the plane of material transactions with nature, it is most obvious in the form of ecological crisis; on the plane of social interactions between people, it is most obvious in the form of an ethical or moral crisis, stemming from the growing inequalities and imbalances in already skewed distributions of resources, both allocative and authoritative, and more generally of life chances and opportunities. On the plane of social structure the most obvious crisis is an economic one; while on the plane of the stratification of the embodied personality we have various acute existential crises (p. 204).

Bhaskar’s notion of the ‘crisis system,’ with its ‘crisis of the four e’s’ highlights that our global crises are so interconnected that they are better understood systemically, in complex, recursive

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232 See Appendix Four and Hedlund & Esbjörn-Hargens (2022a, 2022b) for an elaborated discussion of the notion of the Anthropocene as it relates to integrative metatheory.

233 Both Bhaskar and Morin’s notions are in resonance with insight from systems thinking (see e.g., Mingers, 2014) or complex non-linear systems dynamics (see e.g., Capra & Luisi, 2014; Morin, 2008b). Similarly, deploying a systems perspective, Fritjof Capra (1982b) proposes that the ecological, social, and economic crises we face are not separate, but rather are interconnected manifestations of a single ‘crisis of perception’. This crisis of perception, for Capra (1996), is rooted in “an outdated worldview, a perception of reality inadequate for dealing with our overpopulated, globally interconnected world” (p. 4), which is informed by outdated philosophical and scientific metatheories, notably the mechanistic, deterministic, and atomistic ‘Cartesian-Newtonian’ paradigm. He suggests rather that we ought to see the world from a more organic-holistic worldview, rooted in quantum mechanics and the sciences of complex non-linear systems dynamics (also see Capra, 2002b).
feedback networks with each other. While all of these concepts resonate to varying extents with the idea of the metacrisis, none are identical.

**Metacrisis as Metasystem**

In resonance with Bhaskar’s concept of the ‘crisis system,’ my own term to describe the radically complex state of the world is *metacrisis*. To begin, we can recall the many complex global problems or crises we face as we enter into the third decade of the twenty-first century. The period between 2000 and 2050 has been and will be a time of rapid and unprecedented world systems transformation (Stein, 2019b; Wallerstein, 2004)—a critical transition—driven by deep and complexly interrelated global crises: ecological, technological, political-economic, ethical, existential, and epistemic. From a visionary realist perspective, these crises together constitute a metasystem: a complex, open-systemic phenomenon or system of systems that is the emergent result of a conjunctive multiplicity of irreducibly distinct causal mechanisms or components operating at distinct levels. These mechanisms interact and coalesce into what Bhaskar (2010) calls a “laminated system” or laminated totality. While there are multiple potentially valid descriptions or expressions of the constitutive levels of the metacrisis as a laminated system (which are a matter of hermeneutic debate), what is crucial is that the metacrisis viewed in terms of a non-reductive conjunctive multiplicity of systemic causes or mechanisms (each at their own emergent level) and the phenomenon at large is understood in

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235 See Bhaskar (2016a) for a discussion of the crisis of the ‘four e’s’ on all four planes of social being. Rowson (2017c) offers an expanded frame for understanding the ‘meta-crisis’ by articulating its ‘six e’s’: ecological, ethical, existential, economic, as well as *emotional* and *epistemic*. Rowson’s (2017c) addition of *emotional* and *epistemic* highlights that our individual and collective sensemaking and affect towards our collective predicament are indeed part and parcel of it.

238 Bhaskar originally derived this term from Andrew Collier (1989).
terms of emergence and holistic causality. Emergence is defined here, following Bhaskar (2010), as a unilateral dependence on a more fundamental, lower-order level together with a taxonomic and causal irreducibility to it. The metacrisis is unilaterally dependent on the eco-social, ethical, existential, and epistemic crises and their corresponding mechanisms, which are its core component parts or elements, and cannot be reduced to any of them or their sum. That is, the metacrisis is an emergent metasystem—a higher-order meta-structure or complex totality that coheres in such a way that is endowed with irreducible causal powers and taxonomic properties. Those emergent powers modify, re-pattern, and determine its lower-order eco-social, ethical, existential, and epistemic components. Simultaneously, the structure of those lower-order, eco-social, ethical, existential, and epistemic components causally codetermine each other, thereby causally codetermining the higher-order totality of the metacrisis (Bhaskar, 1993/2008, p. 127). The metacrisis is thus a complex laminated metasystem that coheres out of bi-directional, non-linear relations between: 1) eco-social (ecological and social-systemic) mechanisms; 2) ethical (philosophical-normative) mechanisms; 3) existential (psychological) mechanisms; and 4) epistemic (cultural) mechanisms.  

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239 While it is appropriate to tailor the construction of the laminated system in relation to the particular object of inquiry, it generally ought to include levels analogous to the physical, biological, psychological, cultural, social, and normative. At a minimum a bio-psycho-social model should be used in the study of human phenomena. See Bhaskar (2010; Bhaskar & Danermark; Bhaskar et al., 2018) for more on laminated systems analysis.

240 Technically, the metacrisis is composed of ecological, social-systemic, philosophical-normative, psychological, and cultural component-mechanisms, but for the purposes of this thesis, their re-coding into more general eco-social, ethical, existential, epistemic aspects is sufficient.
This stratification in terms of emergent levels implies a hierarchy of supervenience wherein the higher orders supervene on the lower orders through downward causality, whereas the lower-order levels largely determine the boundary conditions of the higher-order levels. Functionally, this means that philosophical-normative mechanisms supervene on the cultural, which supervene on the social, which in turn supervene on the ecological. The highest emergent levels thus are the most causally efficacious vis-à-vis their supervenience and downward causality on the lower. Philosophical and scientific metatheories supervene on cultural worldviews, which supervene on social systems, which supervene on ecological systems. Thus, metatheories have pronounced causal powers to cascade across such emergent levels and effect whole systems transformation—in this case, the whole system of the metacrisis.

The metacrisis is not only stratified in terms of emergent levels, but is also stratified in accord with visionary realism's transcendental realist depth ontology. This depth stratified nature of the phenomenon includes an understanding of the metacrisis as ontologically structured in terms of its: causal roots (on the level of the real); manifest events or symptoms (on the level of the actual); and epistemic-hermeneutic construals (on the level of the empirical). Thus, we have eco-social, ethical, existential, and epistemic crises (as actual and empirical events and patterns of events) and their corresponding component mechanisms (on the level of the real).

According to the visionary realism’s pandimensional realism, the underlying generative mechanisms or causal roots of the metacrisis exist, and actualize symptom-events, in all dimensions of social reality—in the interior-individual (psychological); interior-collective
(cultural); exterior-individual (biological); and exterior-collective (socio-ecological) dimensions.

Of course, all of these mechanisms and their actualization in each of these four dimensions are real in terms of their ontological objectivity or reality, as discussed in Chapter 5. Hence, visionary realism’s pandimensional realism underlabours for the possibility of researching the interior drivers of the metacrisis as ontologically objective phenomena that can, in principle, be known in an epistemically objective manner as law-like tendencies and structurally resistant, existentially intransitive realities. Without such metatheoretical underlabouring, the research programme of inquiring into the interior mechanisms undergirding the metacrisis is a priori obscured in ways that distort and delimit the possibilities for discovery therein. The causal power of ideas—philosophies, metatheories, and worldviews—is also eclipsed by the neo-Kantian coupling of subjectivity and interiority that saturates the modern worldview. In fact, as I have argued as a central refrain throughout this thesis, the interior (philosophical, cultural, psychological) mechanisms of the metacrisis are superordinate and therefore causally supervenient on the exterior mechanisms, even if the exterior mechanisms feed back on and also in some ways co-determine the interior mechanisms. Thus, without a visionary realist (or comparable integrative metatheoretical) understanding and philosophical underlabouring of the metacrisis to supplant that of irrealism, we are dealing with a systematically distorted intellectual formation that will occlude researchers from discerning and clarifying the most important and causally efficacious generative mechanisms that constitute the metacrisis. Moreover, the urgency of the metacrisis demands that we surmount these systematic distortions to apt intellectual inquiry and cultural lifeworld generally. Indeed, the eradication of
these systematic distortions and category errors is arguably a necessary condition for the possibility of a flourishing, eudaimonistic society.

Of course, as I have argued throughout this thesis, amongst the most important of these interior generative mechanisms are worldviews and metatheories, the latter functioning as the supervenient deep code or generator function behind worldviews, which are themselves more culturally sedimented and less plastic generative mechanisms that in turn supervene on social systems (including institutions, artefacts, and technologies), which of course powerfully impact the ecological systems of the Earth, as the proposal that we have entered the new epoch of the Anthropocene implies. This causal cascade points to the unique and potent role that metatheories can play, on the one hand, in entrenching and reifying erroneous and demi-real worldviews and their cognate social systems, and on the other hand, in facilitating deep, holistic transformation across intellectual, cultural, and social formations in service of planetary flourishing. Moreover, the evolution of worldviews, or cognitive-epistemic structures, through an invariant sequence of stages, as disclosed in the neo-Piagetian stream of research, highlights inter alia that the metacrisis itself can be construed in fundamentally different ways at different levels of epistemic complexity—that is, different worldviews offer different perspectives on it. The visionary realist framework of transcendental evolutionary realism builds on the notion of epistemic fallibility and relativity in highlighting that there are various cognitive skills—conferred only through development along the punctuated trajectory of increasing hierarchical

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241 As the inception of the Anthropocene is understood to have begun with the detonation of the first atomic bomb in New Mexico in 1945, as discussed in Appendix Four, we can see a poignant example of the causal chain from high theory (in this case Einstein’s theory of relativity) to profound socio-ecological systems transformation (Gould, 1947).
cognitive complexity described by the neo-Piagetians—that are the condition for the possibility of accurate construal of the metacrisis. Beyond the cognitive maturity fallacy—which, again, is the assumption that essentially anyone has the capacity to accurately construe complex objects, without potentially long-term and arduous cognitive maturation—is a sober recognition of the educational conditions that must be curated for sufficient portions of the population to acquire the ability to construe the metacrisis (and even many sub-facets of it such as climate change) in an alethically resonant manner. The alternative to such successful education and epistemic capacity-building is the predominance of vertically reductive demi-realities, another key concept espoused by visionary realism.

Vertically reductive demi-realities, in this case, would mean that the cognitive-epistemic capacity to construe the metacrisis in accord with the complexity of its intrinsic structure and alethic truth would be absent. That is, the signifier ‘metacrisis’ would not refer to or express the alethic truth of its ontological reality and complexity. Thus, vertically reductive demi-realities systematically distort the possibility of adequate sensemaking relative to the phenomenon in question, and therefore will definitively generate only inadequate responses and interventions. This asymmetry between the intrinsic ontological complexity of the metacrisis and the complexity of our epistemic capacity to construe it accurately points to an educational crisis at the heart of the metacrisis (a point I will return to). Of course, there is also a more general problem of inter-individual epistemic-hermeneutic divergence and disagreement about our world situation.
As Hulme (2009) and many other theorists have noted with respect to climate change, there is deep disagreement within the public sphere about its reality, severity, cause, deeper meaning, and solution. The same basic principle holds true with respect to the metacrisis: there are many interpretations and understandings of what the metacrisis (taken referentially) or world situation is, how serious our problems are, what is causing them, what it all means in the bigger picture of life, and what to do in response. Transcendental evolutionary realism would suggest that the principal ‘why’ of this disagreement in perspective on the metacrisis can be understood in terms of the evolution of worldviews, particularly the phenomenon of vertically reductive demi-realities, or interpretations of the metacrisis that reduce the complexity of the phenomenon down to the level of one’s capacity. Empirical survey research I conducted with my Dutch colleagues (De Witt et al., 2016), drawing on representative samples of the US and Dutch populations (n=1083), demonstrates a significant tendential increase in concern about climate change; more sustainable behaviours and regenerative lifestyles; and the willingness to make further changes towards ecological, climate-friendly lifestyles among those inhabiting postmodern and integrative worldviews compared to traditional and modern worldviews. This research therefore suggests that certain core (post-formal) presuppositions about reality, knowledge, ethical and aesthetic values, the nature of the human being and society tend to correlate with lifestyles that are more sustainable and climate friendly. In the absence of sufficient empirical research, I would hypothesize that these correlations might be explained, in part, due to the fact that post-formal (postmodern and integrative/metamodern) worldviews possess an actualized epistemic capability for more adequate sensemaking vis-à-vis climate change, while those with traditional and modern worldviews lack the capability for perceiving
the complex systems dynamics that are rudimentary for understanding or approximating the reality of climate change. These pre-systemic interpretations are therefore erroneous—but nonetheless are real due to their causal efficaciousness in shaping social realities and lifestyle choices. If one has not developed the epistemic capacity to construe climate change—or the metacrisis at large—in accord with its intrinsic structure, one may tend to underestimate the severity of the world situation, scanning instead atomistically across various issues, while largely missing the interdependencies and complex positive feedback loops in place that may lead us to hit various socio-ecological tipping points much faster than one might assume. Such vertically reductive demi-realities may lead one to also be perplexed by the notion that ideas might, through the cascades of their second- and third-order effects, play a pivotal role in the trajectory of societies and the unfoldment of the metacrisis, since appreciating that point in its fullness generally requires a metasystematic level of development. Yet it is important to note that a visionary realist perspective highlights that there are harmonics that can resonate with the note of alethic truth. One need not apprehend the metacrisis in its full complexity to understand some important truths about it and live life in alignment or alethic resonance with it. There are many ways that the metacrisis can be translated such that the structure of one’s worldview and the alethic truth of things can cohere in a harmonic of alethic resonance. One might see and know climate change as concrete extreme weather events such as wildfires, hurricanes, or floods that are disrupting supply chains and threatening one’s food security. One might thereby be compelled, out of a simple understanding and enlightened self-interest, to lower one’s carbon footprint and increase food security by planting an organic vegetable garden, for example.
It is important to note, as is illustrated in Figure 1 (Chapter 1), that eco-social, ethical, and existential crises constellate a poly-crisis[^242], which in a sense can be seen as the ‘many’ crises or the sum of the crises on the level of the actual. In this thesis, however, I have emphasized the interior philosophical, cultural, and psychological aspects of the metacrisis, since the world situation is too often reductively understood by technocratic, materialist, and actualist approaches in terms of merely the ecological and social systemic (technological, economic, political) levels involved, without acknowledging the partial nature of their approach. The concept of the metacrisis was forged, in part, because the world situation is not just in crisis in the sense that it is multifaceted or there are many interconnected objective or ‘exterior’ crises or wicked problems occurring (e.g., ecological, technological, political, economic). These ‘exterior’ interconnected crises are also inextricably interrelated with a context of interior sensemaking and meaning-making (semiosis) that includes philosophical, cultural, psychological, and spiritual aspects that are essential to include in any adequate understanding of the complex dynamics in play in order to facilitate more effective responses. In other words, a factor that distinguishes the metacrisis from the poly-crisis and other similar notions of our predicament is that, while the latter highlights that there are many different crises occurring simultaneously and recognizes that many of these are interconnected, the former goes a step further to draw on insights and distinctions from visionary realism to reveal the epistemological

[^242]: Poly-crisis is invoked here in a broad sense, not necessarily as articulated by the French meta theorist Edgar Morin (see e.g., Morin & Kern, 1999).
and ontological, semiotic as well as material, interior as well as exterior, meta-systemic
dynamics at play.\(^{243}\)

Whereas the prefix *poly-* refers to ‘many’ or ‘multiple’ crises and their systemic
interconnection, *meta-* refers in addition to their higher-order, emergent unity as a complex,
laminated open totality or singularity that includes common root causes, actualized symptom-
events, human construal and interventions, and the possibility of a more adequate metaview
that grasps real future possibilities. While the poly-crisis can be understood as ‘the sum of all
the crises’—and indeed this is how the signifier ‘metacrisis’ is sometimes deployed\(^{244}\)—the
*metacrisis* as I am expounding it is more than the sum of its parts, implying emergence and
transcendence in addition to synthesis. ‘Meta’ implies a higher-order unity or identity-in-
difference that holds and operates on the systemic differences in their hermeneutic as well as
naturalistic complexity. Metacrisis can be understood in a general sense as the deeper crisis
within and beyond the poly-crisis—or the totality of the deeper set of interwoven causal forces
and mechanisms that produce the multiple interwoven interior and exterior crisis events or
manifestations, as well as the experiences and perspectives on both the crisis events and their
deeper causes. The notion of the metacrisis thus challenges the idea of an exclusively exterior,
techno-economic and political set of solutions to our global challenges (e.g., the atomistic
notion that merely transitioning to renewable energy and reducing CO\(_2\) levels in accord with the
UNFCCC Paris Agreement, as momentous as that would be, will alone solve our major

\(^{243}\) In line with this, a critical realist metatheory of crisis articulated by Bob Jessop (2015) stresses the semiotic and
hermeneutic dimensions of crises as well as their more objective dimensions.

\(^{244}\) See, for example, Terry Patten’s (2019) Google talk *Confronting the Meta-Crisis.*
problems)—this underscores, for example, that all anthropogenic ecological problems are causally interrelated with the hermeneutic dimension of human interiority and transformative agency (power₁). Because, in a context of generalized oppressive power (power₂) relations both construals and responses will be contested, resolution of the metacrisis will involve among other things ‘hermeneutic hegemonic/counter-hegemonic struggles’ (Bhaskar, 1993/2008, pp. 62, my emphasis). Integrative metatheories, such as visionary realism, are needed inter alia to orient and support the coordination of these struggles and generative efforts globally. Visionary realism’s metaview offers an integrated perspective on the human agent in relation to the world. Without it, we can’t even ‘see’ the poly-crisis, let alone construe it adequately or relate to it effectively; with it, new realities and leverage points for transformative impact are highlighted.

The idea of metacrisis builds on similar notions, such as the global problematique, the poly-crisis, and the crisis system, yet distinguishes itself by incorporating and combining: 1) the notion of higher-order metasystemic emergence; 2) stratification in terms of ontological levels of emergent complexity; 3) ontological depth-stratification (drawing on CR’s depth ontology) that spans the interiors and exteriors in line with pandimensional realism; 4) epistemic depth stratification (drawing on transcendental evolutionary realism); and 5) epistemic fallibility (drawing on CR’s notion of demi-reality in tandem with IT’s taxonomy of epistemic structures). Having expounded the broad topological contours of the metacrisis, I will now examine its root causes more closely.
An Aetiology of the Metacrisis

The metacrisis notion is anti-reductionist in that it implies that none of our complex eco-social, ethical, existential, and epistemic challenges are solvable in isolation, since they share multiple common underlying structural root causes and are linked in an underlying pattern of organization conferred by the emergent holistic structure and causality of the metacrisis. The very concept of the metacrisis, if valid, renders atomistic and piecemeal approaches to our global problem fallacious. When dealing with systems and meta-systems, one generally cannot successfully address the problems associated with its components in isolation. Rather, the holistic pattern of organization must be addressed. Systemic problems generally are solved together or not at all. This highlights the wicked nature of the metacrisis: because of such complex interdependencies, the effort to solve one aspect of a wicked problem may reveal or create new (often more complex) problems—further compounding the predicament—much like the Hydra of Greek myth (see Figure 10):

[i]In Greek mythology, the Hydra was depicted as a terrifying monster who would constantly terrorize people with the mere stench of its poisonous breath. The Hydra had the body of a serpent and many heads, each of which would project its deadly breath onto all who came near. If any of the Hydra’s heads were severed, two would grow back in its place. The Hydra seemed unstoppable, and thus many did nothing to try to stop its reign of terror. Nonetheless, the courageous Heracles rose to the occasion and began his search for the multi-headed beast. Upon discovering the Hydra’s illusive hiding place, Heracles drew the Hydra out from its hole by firing flaming arrows at it. Heracles then drew his sword and began to attack, severing head after head, only to watch the beast grow back twice as many heads as he cut; the harder Heracles attacked each individual head, the more powerful the Hydra became, and the more Heracles was in danger of succumbing to defeat. But Heracles was quick to see the futility and foolishness of his approach and thus realized that a radically different [and holistic] approach was necessary to get to the heart of the Hydra—the belly of the beast (Hedlund, 2003, p. 6).
Figure 10: The Hydra of Lerna and Hercules

Trying to solve any of the lower-order problems or crises that constitute the metacrisis without addressing it as a systemic gestalt with deeper causal roots (the ‘belly of the beast’), may not only be ineffective, but may actually make things worse, as the myth of the Hydra suggests. Due in part to their intricate interdependencies and networked feedback loops, while many of our distinct problems or crises could be understood as ‘wicked’ or ‘hypercomplex’ in their own right, I argue that they can be more adequately understood together as a system composed of a complex multiplicity of causes—a metacrisis that is more than the sum of its parts and therefore cannot be reduced to any of them.

Through a general retroduction, one can trace the primary causes of the metacrisis back in a general retroduction from the level of institutionalized techno-economic and geopolitical structures and systems (which are, of course, cultural reifications) to the philosophical, cultural,
and psychological structures or mechanisms in the vital dynamism of lifeworld (*lebenswelt*) from which they were born. Human social systems were created by *humans*—and created around a vision of the world and humanity’s place in it—a worldview (*weltanschauung*), collective self-understanding, or overarching metatheory (whether implicit or explicit).

The book *Crisis System* (Naess & Price, 2016), which explores Bhaskar’s notion, illustrates this principle in “following the roots of the global crisis [system] back to an inherent dynamic in the capitalist economic system itself, discursively expressed in neoclassical economics” (p. 1). But what, we might ask, are the generative mechanisms undergirding capitalism and neo-classical economics? As Roy Bhaskar’s personal history illustrates (Bhaskar & Hartwig, 2010), neo-classical economics is undergirded by the metatheory of positivism, which due to its flat Humean ontology succumbs to the actualist fallacy and the epistemic fallacy, and implies that change is impossible. Indeed, it was for these reasons Bhaskar turned his focus from economics to philosophy of science or metatheory α—to formulate a transcendental critique of positivism and articulate a new (critical realist) depth ontology. So, while the metatheory of positivism undergirds and constrains neo-classical economics and neo-classical economics reinforces capitalism (and the modern materialist/consumerist worldview), the critique and forging of an alternative to positivism in critical realism incites cultural transformation that can then lead to the development of new economic theories and systems.

As Bhaskar’s journey with neo-classical economics illustrates, a systems crisis is not just a series of resolvable difficulties from within the existing architectonics of a system; a true systems
crisis cannot be resolved from within the existing structural logics or dynamics of the system, whether interior or exterior—they can only be addressed adequately by going beyond those causal logics and their accentuated symptom-events that inevitably approach asymptotes (Wallerstein, 2004, p. 76). That is to say, a true systems crisis will only be resolved through a discontinuous transformation event that leads to the evolutionary emergence of new systemic structural logics that can reboot the system at a higher-order, or through the devolutionary regression to lower-order, simpler structural logics, or ‘basins of attraction’ (Hedlund, 2003; Rutt, 2017). When a system is in crisis, the deep contradictions and absences in a system’s internal logics tend to feed back on themselves, creating a positive feedback loop of systemic

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246 My usage of ‘system,’ to be sure, is not confined to exterior physical, biological, or technological systems. From a visionary realist perspective, systems can be a function of exteriority or interiority (consciousness, culture, developmental structures, worldviews, etc.). In this way, I agree with Wilber’s (1995) critique of some systems sciences, which critique mechanism, atomism, and determinism, while also denying the reality of interiority and thereby succumbing to a “subtle reductionism.” Integral theorist Allan Combs (1995; Robertson & Combs, 1995) has applied systems/complexity science to psychological systems, while I have applied it to cultural systems (Hedlund, 2003).

247 According to the former chairman of the Santa Fe Institute, Jim Rutt (2017), when our present capitalist ‘Game A’ social system reaches a critical point of structural instability, there are a number of ‘bad’ or regressive attractors that are attempting to steer the evolutionary trajectory of our system into new and dark regimes including: neo-feudalism; neo-fascism; neo-dark ages; environmental collapse; and endogenous collapse. However, he highlights that new evolutionary attractors can potentially emerge and steer the system into a new relative stability. He and his colleagues, such as Jordan Hall and Daniel Schmachtenberger, are working to forge the contours of a deep systemic re-boot at a higher-order—what they call ‘Game B.’ The notion of a society shaped by Game B attractors has deep resonance and referential overlap with the notion of the emergence of a eudaimonistic society. The two streams of thought are both informed by complexity science and appear to be largely complementary, with Game B focusing more on the problem fields of substantive technological and institutional systems design, while the critical/visionary realist notion of eudaimonistic society is focused more on the level of deep philosophical and cultural (or worldview) transformation. One important point of contrast and contention between a visionary realist approach and that of Rutt has to do with the role of metaphysics in the emergence of the new attractors that might forge a better society. For Rutt, metaphysics is somewhat coarsely associated with premodern magical thinking and its cognate social oppressions. Visionary realism would, of course, largely agree with such a critique of premodern magical, metaphysical thinking. However, as I have argued for throughout this thesis (especially Chapter 2), metaphysics must be de-coupled from such magical thought and can have a modern rational and post-rational inflection as critical ontology, or metatheory α, that is not ‘speculative’ any more than the retroductive method undergirding most of the sciences of complex non-linear systems dynamics is. Understood as such, metaphysics only in its pre-critical instantiation need be eschewed. In fact, the resurgence of critical metaphysics, or as I prefer to call it integrative metatheory 2.0—as visionary realism argues along with Stein (2018b) and others—will play an indispensable and even leading role in forging the cultural and ethical foundations of a new and better society.
destabilization. The modernist attractors that primarily govern the world system are driving it further into structural instability and metacrisis—their deep logical contradictions function as mechanisms or drivers of its own unravelling and eventual self-termination. Similarly, Cambridge theologian and social critic Rowan Williams (2016) articulates the metacrisis as follows:

There are crises and there are meta-crises: a system may stagger from one crisis to another but never recognise the underlying mechanisms that subvert its own logic [...] If we are now panicking about the triumph of a politics of resentment, fear and unchallengeable untruthfulness, we had better investigate what models of human identity we have been working with. Our prevailing notions of what counts as knowledge, our glib reduction of democracy to market terms, our inability to tackle the question of the limits of growth—all these and more have brought us to the polarised, tribal politics of today and the thinning out of skill, tradition and the sense of rootedness. Treating these issues with intellectual honesty is not a sign of political regression but the exact opposite.

Integrative metatheories allow one to ‘treat these issues with intellectual honesty’ and thereby see and engage the reality of metacrisis in its holistic complexity. And in revealing the metacrisis in its holistic complexity, it becomes clear that our problems run deep: the holistic structural logic of the world system is itself implicated, suggesting that partial, technocratic ‘solutions’ simply will not only not be enough, but they will quicken our trajectory towards catastrophic bifurcation. It is likely that early responses to the metacrisis will involve a doubling down and pushing harder of the anachronistic modernist logics and technocratic fixes. Not only will these attempts tend—sooner or later—to fail as reality pushes back in compensative feedback loops, but we will have compounded and accelerated the crisis and eroded the potential for a better transformative outcome in the long run. The sooner we understand this principle, the better we will collectively fair as we address the rapidly compounding urgency of the metacrisis. For example, even if we were to collectively reduce CO₂ emissions sufficiently to
meet the 2016 Paris Agreement to limit global temperature rise during this century to below 2°C above pre-industrial levels, we would still be far from ‘solving’ the metacrisis, since, to name but one thing, we would not have addressed the underlying mechanisms that subvert the logics of the world system. Perhaps the most obvious of these is a globalized neoliberal economic system predicated on perverse incentives rooted in the core demi-real assumption of infinite economic growth on a finite planet: as such there would still be in place a system that objectifies and commodifies life, perniciously incentivizing a myriad of destructive practices that contribute to climate change and overall ecological crisis, such as clear-cutting the Amazon rainforest, producing absurd amounts of plastic that end up in our seas and soils, and the factory farming of animals (Lappé, 2010). Thus, the monumental, if myopic, task of reducing CO₂, while undoubtedly a critical moral and practical imperative, amounts to an atomistic and technocratic band-aid fix or ‘patch’ in the face of the metacrisis—cutting off another head of the Hydra, if you will. Indeed, the very notion of the metacrisis implies that there is no discrete ‘solution’ to the metacrisis, at least in the closed-systemic, atomistic, and technocratic ways in which we often conceive of the word.

Solution Patterns for the Metacrisis

While atomistic and siloed ‘solutions’ to any of our complex global problems can be qualitatively predicted to fail, given the metasystemic structure of the metacrisis I have articulated above, there are, however, holistic-systemic solution patterns that can be identified, adapted, and refined in an iterative manner to adequately address the metacrisis. They can indeed catalyze gestalt transformations and the evolution of our present social formation. Such
holistic solution patterns—which are readily seen only with an adequate integrative metatheory such as visionary realism—would give birth to an emergent social formation that is guided by fundamental new principles. There are likely many such principles that will become the generator functions of whatever world system will emerge in the wake of modernity. However, through the understanding of the metacrisis forged by visionary realism, there is one overarching meta-principle that has emerged through my research—which supervenes on, and is unilaterally dependent on, the other principles of visionary realism (such as ontological realism, epistemic relativity, etc.). That meta-principle I refer to as alethic resonance. Alethic resonance, which I will elaborate below, can help bring our worldview into greater alignment with the truth of our world, thus reweaving the ‘second nature’ of the human within the fabric of first nature and its boundary conditions. Thus, this meta-principle is an overall design principle for flourishing on all levels that can catalyze a transition to new sustainable, regenerative, and flourishing forms of life—that is, towards a concrete or relative eutopia and the emergence of a eudaimonistic society. It can help empower us to make it through the collective rite of passage or initiation that the metacrisis demands.

In this way, ‘solving’ the metacrisis, insofar as it is possible, is likewise synonymous with ‘solving’ the problem of the human place in the order of things. This is a key silver lining of the Great Transformation (Molz, 2016) or Great Turning (Macy & Brown, 1998) of our civilization: the metacrisis mirrors and amplifies the false/demi-real or heteronomous elements that have long persisted in our collective self-understanding (e.g., our illusory sense of separation and

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248 The Great Transformation has also been called the Great Transition (see Raskin et al., 2002; Spratt et al., 2010).
alienation from ourselves, each other, nature, and the divine) and demands that we evolve rapidly a more self-realized and alethically resonant self-understanding wherein our depth interrelatedness or co-presence with each other and nature is understood to be a ubiquitous feature of reality (Bhaskar, 2002/2012a). Sometimes it takes a crisis to incite us to awaken from our sleep walking—and that is precisely the opportunity that, I argue, is bestowed upon us through the metacrisis. Indeed, the Greek word Alêtheia (from α- not, + lēthē, the river of oblivion or slumber in the ancient Greek mythological underworld) literally means ‘not slumbering or forgetting.’

Integrative metatheories are co-evolving and co-emerging with the metacrisis. On the one hand, the metacrisis (as a reality in the world) demands and in part drives the emergence of its alethic understanding (as an expressive-referential concept) in an integrative metathecy, since the absence of its adequate construal drives its actualization. On the other hand, integrative metatheories allow one to see and engage with the reality of metacrisis in its holistic complexity. This points to a crucial dialectic wherein the contemplation of the world situation, even lacking an adequate concept of it, reveals more of the inadequacy of our notions of it, which in turn drives the absenting of those inadequacies in the development of a more adequate understanding. As we open ourselves to receive the whisperings of the world beyond our ideas of it, the world responds, activating the dialectical-developmental forces that move us towards an alethic resonance between world and worldview. Goethe, in his scientific genius, put it this way: “every object, well contemplated, opens up a new organ of perception within

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249 Goethe, who’s literature and poetry is often compared to that of Dante and Shakespeare, held his work in scientific methodology as his most significant contribution (see e.g., Bortoft, 1996).
us” (Hamburger Ausgabe, XIII, p. 38. quoted in Cottrell, 1998, p. 257). The semiotic and metacognitive *presencing* of the intransitive reality of the metacrisis leads to the *absenting* of that which is absent in our dominant ideas about it (or its proxy concepts)—and more of reality is seen and expressed. Indeed, this thesis is, in part, an extended exercise in the contemplation of the metacrisis; the resulting visionary realist understanding of the metacrisis will hopefully help to forge the organs of perception needed to do it justice and contribute to the illumination of the narrow yet auspicious pathway towards a more vital, eudaimonistic future.

There are overlapping root aetiologies of the many actualized crises, or crisis manifestations, that can be understood broadly in terms an onto-epistemic evolutionary crisis that has to do with the evolution of worldviews and the error, illusion, and inadequate construal (or absence) of the complexity of our world in our worldview, including an adequate spiritual vision of the human and our place in the unfolding cosmos. As the applied philosopher Jonathan Rowson (2017b) describes the metacrisis: “at a collective level prevailing thinking about the world lacks depth and perspective, our ways of valuing and conception of the good are underdeveloped, and there is no compelling shared vision of meaning and purpose” (p. 99). It may be that it is only through a consilience of integrative metatheoretical visions of reality that we will be able to address the metacrisis with sufficient depth and perspective.

If we rely only on positivist-empirical science and its actualism, it may be that we are caught in a ‘catch 22’ in which by the time we have gathered enough empirical data to make a convincing case for the metacrisis, it will be too late to address it such that we save human civilization. In
the same way that we do not need to drive a truck off a cliff to know the inevitable and fatal result, due to our formal or intuitive understanding of Newton’s laws, we likewise do not need to continue on the trajectory we are collectively on to ‘prove’ the result to be catastrophic. However, in contrast to the Newtonian-mechanistic understanding that confers prudence upon us when considering driving off a cliff, summoning our prudence with respect to the metacrisis depends on our ability to deploy a holistic-systemic wisdom that combines empirical and transcendental analyses into integrated rational knowledge, and then combines or triangulates such knowledge with somatic, emotional, and spiritual intuition. But crucially, this depends first and foremost on our ability to understand and legitimate the notion of a stratified ontology that differentiates between real causal forces, real events, and real experiences. For if we can understand wisely the causal forces and mechanisms at work in the metacrisis, then we can potentially disclose the systemically interwoven forces of holistic causality that undergird future potential catastrophic events and experiences. Since events and experiences are, in a specific sense, ontologically subsequent to their causes, then we can start to use our understanding of causes (on the level of the real) and related holistic-systemic patterning to navigate our trajectory more wisely, rather than waiting for the events and experiences to guide us. We do this with a kind of common sense with respect to the terrestrial mechanics of material objects—but we have yet to realize a kind of holistic analogue to that with respect to macroscopic dynamics such as the metacrisis.

In contrast to the Newtonian-mechanical metaphor described above, from a visionary realist perspective, we cannot predict the future dynamics and trajectories of the metacrisis in any
deterministic, quantitative sense of prediction. Thus, we must embrace uncertainty. However, much like the shift from the linear dynamics of Newtonian physics to the non-linear systems dynamics of the sciences of complexity (Capra, 1996, 2002; Capra & Luisi, 2014), from a visionary realist standpoint, we can understand important qualitative patterns that confer critical information about systems dynamics, from which we can inform our collective decisions and policies. For example, with respect to non-linear systems dynamics, when a third-state system under stress reaches a critical point of structural instability it hits a bifurcation point, wherein the system undergoes a phase shift such that emergent, unpredictable forces of order and innovation come online. While we cannot predict, deterministically, the trajectory of the system, we can indeed determine that the system is quantitatively indeterminate and that it is qualitatively determinate (it will exhibit highly ordered, fractal behaviour that shows great sensitivity to small perturbations that can ripple out in exponential spheres of positive, amplifying feedback, for example). The overarching, general principle of alethic resonance can and must be complemented by more concrete understandings of systems dynamics such that we can effectively navigate the substantive problems that instantiate the metacrisis. We need to develop more concrete and nuanced alethic principles that correspond to the ‘partness’ as well as the ‘wholeness’ of the metacrisis.

**Alethic Resonance, Social Evolution, and the Eudaimonistic Society**

Visionary realism, through its identification of the natural or transcendental necessity of an evolutionary ontology, conceived in terms of transcendental evolutionary realism’s developmental-structural model of hierarchical complexity (Commons et al., 1984), sketches an
integrative, pandimensional-realist model of social evolution. This model of social evolution, which is particularly indebted to Piaget and Bhaskar, is of central importance in terms of addressing the metacrisis and understanding the deeper principles and dynamics that can help us to evolve towards a eudaimonistic society. Visionary realism underscores that human consciousness, culture, and social systems are necessarily responding to the complex demands of real life conditions. This model is thus dialectical, positing that successful evolutionary adaptation involves the progressive absenting of demi-realities and an equilibration—that is, *alethic resonance*—between our dominant worldview and the reality of the world. The principle of alethic resonance is the linchpin of a visionary realist view of social evolution in the direction of a eudaimonistic society, and thereby deserves further elaboration.

Alethic resonance refers to the phenomenon in which an epistemic object or system—through reflexive and recursive processes of dynamic steering—comes into relative sympathetic entrainment, harmonic alignment, or dynamic equilibration with the intrinsic structure or truth of another object or system (as distinct from propositions about it) such that they tend towards a dynamic oscillatory coupling by virtue of their structural alignment. In other words, alethic resonance points to a tendential alignment or dynamic equilibration between the intrinsic ontological structure of an object or system and knowledge (or its contingent technological and institutional artefacts) of that object or system. It implies that the mind or epistemic event

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250 Alethic resonance points to a tendential alignment or dynamic equilibration between the ontological structure of two or more objects or systems, such as natural and social formations. Literally speaking, relativistic physics shows us that the form structures of the universe consist of matter, which is a function of electromagnetic energy, which is a function of light, which is a function of vibration or frequency. Thus, it may be that ideational and social forms literally have a frequency that can be, to varying degrees, in resonance or dissonance with the frequencies in the field of nature.
horizon is a priori structured by the larger world, within which it is constellationally contained, such that it is necessarily ordered by a field of ontologically potentiated harmonics that can only be expressed by the human through its self-reflexive agency. Alethic resonance thus relates to the real causal force(s) that an object or system, in its true or intrinsic structure, exerts on another contrasting object or system, causing the latter system to be responsively activated and potentiating its amplification along the horizon of its harmonic resonance. Human knowledge and agency is therefore more or less harmonically resonant with, and expressive of, the ontological truth of things beyond propositions, even if it is nonetheless intrinsically epistemically fallible and contestible. In this thesis, the notion of alethic resonance is deployed primarily to refer to the relations between the epistemically constructed world of human social systems (nature2) and non-human ecological systems (nature1)—human knowing (epistemology) and being (ontology). Simply put, alethic resonance denotes human knowledge, agency, and artefacts (e.g., art, technology, social systems) that referentially express, participate, amplify, and/or harmonize with the truth of things beyond propositions.

Alethic resonance is distinct from correspondence theories of truth and dualistic representational theories of knowledge, as it implies that there are myriad harmonic expressions of the true referent of a thing or object, which are themselves not separate from it. That is, the idea of alethic resonance also stands in contrast to philosophies of simple representation or reflection of a static reality or given truth that is dissociated from the knower and the process of knowing. Rather, alethic resonance has to do with the forging of resonant expressions of alethic truth—of which there are myriad possible inflections. Such expressions, if
they are indeed in alethic resonance, are tendentially coupled with ontological truth, understood as dynamic, processual, and participatory. Alethically resonant acts of human knowing participate in the expression of reality by actualizing facets of a dynamic and differentiated unity, rather than representing a pre-given reality. In contrast to expressions of participatory philosophy that lack an explicitly realist philosophical ontology and arguably tend towards (en)actualism and irrealism (see e.g., Ferrer, 2002, 2017), the notion of alethic resonance implies that there is an existentially intransitive processual reality that can be referentially expressed with more or less truth or accuracy. Acts of knowing are not merely self-referential ‘enactments,’ stuck in the Kantian correlationist circle, that ‘bring forth a world’ that can only be judged, for example, according to pragmatic criteria (see e.g., Ferrer, 2017). Clearly, pragmatic criteria, if they are to be intelligible at all, presuppose ontological truth, and thereby are mired in performative contradiction (in theory and practice) when devoid of an explicitly realist ontology. The visionary realist inflection of participatory philosophy I argue for here has a definitively realist sensibility, drawing out the implicitly participatory philosophy embedded in critical realism, and bearing resonances with the so-called ‘real idealism’ of Goethe’s later scientific work (see e.g., Richards, 2002).

In participatory praxis, alethic resonance thereby has a keystone role in the ecology of reality, bridging the Kantian chasm between knowing and being, mind and world, humanity and nature. Conversely, such alethically resonant human expressions are therefore activated, amplified, and emboldened by their harmonic alignment with the larger field of nature, as nature and nature join together in consonance, concord, and differentiated unity. In this way, alethic
resonance is evocative of a complex dialectical dance of recursive, bidirectional feedback between the sociosphere and the biosphere, wherein the sociosphere is iteratively tuned to the harmonics of the biosphere.

The transformative potentials embedded in the notion of alethic resonance have to do with the implicit assertion of a metaxical harmonization and transmediation between epistemology and ontology, wherein epistemology’s constellational containment or differentiated unity within ontology is expressed. The idea of alethic resonance likewise implies an existentially intransitive ‘note’ of ontological reality—a ‘natural frequency’—that is prior to the flows of human agency, and a necessary animating condition for the possibility of resonance. In other words, alethic resonance implies a principle of receptivity or listening, wherein the discursive mind can open to or ‘tune-in’ to the note of alethic truth and allow the discursively potentiated clearing of the mind (together with body and heart) to be inspired and activated by a reality beyond mind. The mind, in its higher-octave potential, is actually more like a resonance chamber than a creator onto itself. When in its optimized mode of receptive listening and attunement, the mind has the potential to receive and inflect—with participatory creativity and agency—the nearly infinite harmonic expressions of the deeper realities from which it was sourced. By engaging various contemplative practices, such as meditation, the mind can become clear and more receptive to receive the deeper impressions resonating from within. Much like when a musician can tune by ear and hear perfect pitch, there is a felt sense of resonance that arises and, with practice, can be clearly discerned from dissonance (demi-reality) by a community of the
adequate. Indeed, if mind and world were not always already interwoven, such resonance would not be possible at all.

The idea of harmonics are also crucial to the notion of alethic resonance in that harmonics imply that there are a myriad of notes that can be expressed that are not necessarily definitional expressions of a detached alethic referent. Rather, the field of harmonic potentials reveals a vast horizon of participatory and processual creativity that maintains its fundamental harmonic resonance with the field reality or alethic truth. Here we can see one of the fundamental distinguishing features of alethic resonance versus alethic truth. Alethic truth signifies the truth of things beyond propositions (viz., referential detachment). Alethic resonance refers to the possibility of an open and dynamic onto-epistemic totality that has been rendered whole and actualized through human participation in the vast field of potentials conferred by the harmonic resonances intrinsic to the architectonics of reality.

To pivot to an ocular metaphor, these harmonic resonances are akin to the vastly scalable fractal geometries seen in the trajectories of complex dynamical systems of the natural world (e.g., the Mandelbrot set as a representation of the morphology of a cumulus cloud). These fractals recursively iterate in nearly infinite possible expressions, no two of which are identical, but all of which bear a striking resonance or self-similarity. The potentials for alethically resonant human participation and creativity are vast—and resound with the infinite depth of ontological negativity. Alethic resonance thus opens the Kantian gates at the nexus of subject and object, mind and world, knowing and being, and invites us to pass through and participate
in a reweaving of the circle of life, rejoining human nature with the vast field of nature from which we came and are ongoingly reproduced by. Alethic resonance, in this way, points toward the higher-octave potentials of our collective intelligence to achieve a kind of lucidity about our differentiated unity within the field of reality. Alethic resonance may in fact be more than a meta-principle; it may also be a superordinate hermeneutic attractor, causal force, or even telos, wherein the driving force behind the quest for human knowing and adaptive or evolutionary transformation is alethic resonance (and, dialectically, its absence).

Attempted adaptation in the direction of alethic resonance, through the modulation of our agential transformation or reproduction of our social structures, thus recursively causes changes in real conditions that in turn demand further revision and adaptive transformation. Successful adaptations therefore curate the conditions for the possibility of a dynamically calibrated relative symmetry or resonance between alethic truth of the world and our predominant worldview(s), allowing for a descriptive-expressive continuity or participatory seamlessness at the mind-world nexus where Kant—and (post)modernity—sees an unbridgeable ontological rupture. In other words, human society tendentially and iteratively develops toward more complex, adequate, or alethically resonant social formations through a dialectic of culture and technology (both social and physical). Hence, my construal of ‘social evolution’ should be understood in the broad sense of ‘socio-cultural’ evolution defined by a dialectic between interiority and exteriority, culture and social systems/technology, or lifeworld and system, as Habermas (1987) puts it.
Indeed, from a pandimensional evolutionary realist perspective, when organisms fail to accurately make sense of the reality of their interior and exterior environment—that is, when their perceptions and cognition fail to approximate, align, or couple with the reality of their habitat and its boundary conditions, those organisms tend to self-terminate. This is likewise tendentially true for civilisations (see e.g., Diamond, 2005a, 2005b). As Bhaskar (1986/2009) puts it, there is an “ecological asymmetry” between “species and environment (or subject and object, or part and whole, or individual and society)” such that when they “mismatch, it is the species, subject or part, not the environment, object or whole which ‘gives,’ goes under” (pp. 140-141, my emphasis). Such an ‘evolutionary mismatch’ (Cofnas, 2016) or ‘disequilibriation’ (Piaget, 1971a), wherein the alethic truth of the environment and its task demands substantially diverge from the epistemic capacities or skills that have previously evolved to successfully interpret and survive in an earlier environment, leads to an evolutionary crisis where rapid evolution is needed for survival. An irrealist worldview may have been adaptive for a time (say in the cultural revolutions of the 1960s that questioned conventional institutions) but has now become predominantly pathological—and thus a new, realist worldview is needed.

While we are indeed endowed with great powers of imaginal creativity and transformative agency, and can, in some sense, construe or even co-create ‘reality’ however we like, there are categories of such agency that misalign with the alethic truth of the law-like tendencies or patterns of nature and are therefore false (or demi-real). Goethe (1794-5/2011) puts it in no uncertain terms: “when nature expresses abhorrence, she does so out loud [....] the creature that lives falsely is destroyed early” (p. 446). This is a critical understanding, since the discourse
about realism and truth can often be construed in a merely cultural, psychological, linguistic, or epistemic context, and overlooks the evolutionary biological and ontological imperative of truth in the context of organismic or species-level adaptation and survival. Successful human societies persist in a tightly coupled feedback loop of adaptation between the alethic truth of the ecological environment and our human construals—that is, alethic resonance.

It is crucial, as I have discussed, to understand the philosophical roots of this malignant form of irrealism that is driving the decoupling of the structures of the lifeworld (and its institutionalized-systemic artifacts) from the structure of the world as such. This remarkably dangerous phenomenon can in many ways be understood as the penetration and propagation of post-Kantian irrealist metatheory—particularly its non-dialectical radicalization as postmodernism (Bhaskar, 2002/2012b)—from the ivory towers of high academic metatheory to the mainstream of culture and politics (Pluckrose & Lindsay, 2020). Clearly, the need to revindicate truth, reclaim reality, and cut through the demi-real noise of fake news and ‘alternative facts’ has never been so pressing.

In an analogue to the constellational containment of the human mind and its knowledge within the enveloping reality of the world, we could likewise say that nature constellationally contains humanity, such that humanity is every bit as much nature as the forests and rivers, the fish and the birds. But humanity, by virtue of our triune brain structure, and particularly our complex neocortex (especially the prefrontal cortex) and associated self-reflexive consciousness,
represents an emergent aspect of nature with great powers of mind. Nature_1 (extra-human nature; Bhaskar’s ‘first nature’) therefore refers, diachronically, to nature as it preceded the emergence of homo sapiens, and synchronically, to the physiosphere and biosphere in aggregate. Nature_2 (nature-as-humanity; Bhaskar’s ‘second nature’) refers to the emergent self-reflexive aspect of nature: the sociosphere, or what Teilhard de Chardin (1959) called the ‘noosphere’ or the sphere of self-reflexive mind or consciousness. Nature_2 is thus internal to and causally dependent on nature_1, from which we emerged, and which ongoingly sustains our existence (Bhaskar, 1986/2009). On the other hand, due to our ubiquitous and penetrating techno-economic prowess, there is, sadly, no longer a nature_1 that is ‘pure’—untouched and unmoulded by human activities (McKibben, 1989; Schwägerl, 2014; Steffen et al., 2011). With modernity came capitalism, and with capitalism came the Anthropocene, a newly proposed geological epoch marked by humanity’s deep refashioning of the biosphere in its own image (Crutzen, 2002). According to Moore (2015), who prefers to call the Anthropocene the Capitalocene, humanity is not only internal to nature (society-in-nature), but nature is also in some sense internal to humanity (nature-in-society)—modernity’s capitalist world system has created a “double internality” by subjecting nature to profound human impact (Moore, 2015). Crucially, this double internality of humanity-in-nature and nature-in-humanity—or extra-human nature and human nature, respectively—is defined by what Bhaskar (1986/2009) calls the ‘ecological asymmetry’ wherein humanity (‘second nature’) is causally and existentially dependent on nature (‘first nature’) and nature is causally interdependent with humanity, but

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251 These powers of mind associated with the neomammalian neocortex (MacLean, 1990) are shared by the cetaceans (dolphins, whales, and porpoises) such that self-reflexive consciousness is very likely not limited only to humans.
nature is not existentially dependent on humanity. “What we need in order to feel at home in
the world,” Bhaskar (1986/2009) writes,

is not the infantile fantasy that it was made for us; but the mature post-Darwinian recognition of
the ecological asymmetry: that it is more true to say that we were made for it, and that we
survive as a species only insofar as second nature respects the overriding constraints imposed
upon it by first nature (p. 222).

There is the semiotically dependent social world (of nature₂) that we create in a dialectic of
structure and agency, and there is the world (of nature₁) from which we were created. These
two worlds must cohere into an alethic resonance, wherein what we create is forged in
alignment with the deeper truth of nature—with reality itself. We can playfully imagine,
envision, and create our noospheric social world freely, but if it is to support the flourishing of
all life, that creation must be deeply resonant or harmonized with the truth of nature and
reality. The metacrisis reveals that our time of frolicking about in the demi-real, failing to check
our hubris and take adult responsibility, is running short.

Visionary realism attempts to contribute such new concepts of nature (a philosophical ecology)
and new concepts of the human (a philosophical anthropology) that supports their synthesis
and higher-order reintegration. Taken analytically, visionary realism articulates the basis of
each of these new understandings of both the human and nature; but taken dialectically, it
articulates an integrated vision of human-as-nature and nature-as-humanity—a philosophical
anthropoeology. Human nature (nature₂) is a differentiated-integrated function of nature
herself (nature₁) in complex-dialectical unity: a metaxy (Plato & Waterfield, 2008), in between
and beyond the old polar categories that constituted the modernist vision of what Whitehead
(1964) called the ‘bifurcation of nature.’ Integral theory and critical realism both contribute
essential elements to these emerging identities, not found in the other. Visionary realism attempts to work out how the contributions of both can be integrated into a non-contradictory coherent vision of the dialectical unity of nature and humanity.

Ultimately, the metacrisis does, on the level of root causes (aetiological complex), come down to a kind of mismatch between the reality of our world and the demi-reality of our worldview(s). Learning how to close this gap is perhaps the key question facing humanity. Thus, if construed in the broadest sense, the metacrisis can be seen as a collective educational crisis in the sense that we need to learn how to learn such that our worldview(s) asymptotically comes into greater and greater resonance with the reality—with the alethic truth of the world. Wilber (1995) argued in the mid-1990s that the ecological crisis is actually a crisis of consciousness—it is a crisis of the noosphere, not only the biosphere. Those who have referred to the crisis as an epistemic crisis, an educational crisis, a crisis of consciousness, or a crisis of perception, an evolutionary crisis, etc., are approaching a similar key insight. The idea that at the root of our ills lies a story or metanarrative of false atomization and split, and we need to shift into a story of connection, unity, or inter-being, is indeed broadly correct. The argument I have made for a visionary realism buttresses these perspectives by providing a metatheoretical framework that suggests that a crucial way we can respond to the root causal complex of the metacrisis is by recognizing that if we want to flourish on this planet we must embody a reverence for reality, aspiring to bring our collective understanding and social systems into resonance with it, and ongoingly learning how to do that better. Therefore, the metacrisis is ultimately an onto-epistemic crisis of education—of learning how to bring our worldview into alethic resonance with the world in an ongoing, iterative dynamical process of transformative
feedback and evolutionary adaptation. Wisdom refers to the capacity to wield the best of our integrative knowledge to effectively address that which matters most—which, of course, is our free flourishing on the Earth. Such wisdom beckons not only the mind, but also the heart and the will, and compels us to act to deploy our knowledge in service of the emergence of a eudaimonistic society.

_Death, Negation, and Metamorphosis_

From a more social-psychological and psychodynamic perspective, this tendency in the Western mind towards ontological irrealism can be traced in part back further to what Habermas (1971) calls ‘anthropologically deep-seated knowledge constitutive interests’: namely, the largely unconscious desire to control and manipulate nature in a desperate and fool-hardy attempt to deny the reality of death (see e.g., Becker, 1973). William James called this knowledge of our immanent death the ‘worm at the core’ of the human condition (Solomon et al., 2015). We are now attempting to turn our leading-edge technologies to try to ‘extract the worm,’ if you will; Google, for one, has launched a company called Calico that aims, without an ounce of irony, to “solve death.”252 From a visionary realist point of view, this is deeply misguided, since in a purely positive, ontologically monovalent world, there would be no change, transformation, development, or evolution. The universe has a bi-valent, dialectical ontological structure for good reason. Ontological negativity—in this case, death—is literally the generative source of development, and evolutionary creativity. Without the principle of death there would be no flourishing—rather, stagnation, fixation, and bondage would reign.

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252 For more on Google’s Calico project, see: https://time.com/574/google-vs-death/
The problematics of the denial of death on an individual level clearly applies to the collective, civilizational, or species level as well. Civilizations and species are mortal too; even under the best of conditions, humanity will eventually perish along with the Earth when the Sun supernovas in an estimated 5–7 billion years (barring, of course, our colonization of new planets in other solar systems). As such, spiritual maturity has much to do with the acceptance of the reality of death on both an individual and species level. The confrontation with death and tragedy driven by the planetary metacrisis will inevitably lead to a resurgence of the real and the sacred in the face of what the philosopher Sam Mikey (2016) calls ‘the unbearable intimacy of ecological emergency.’ As Solomon et al.’s (2015) terror management theory proposes, based on over 25 years of in-depth experimental research, humans tend to shape culture to manage their largely unconscious fear and denial of death, creating structures that confer a sense of order, stability, and control in the face of the knowledge of the inexorability and ubiquity of death. Terror management theory has been applied to the human psychological and cultural response to climate change, noting that the threat of mortality posed by climate change tends to trigger proximal and distal psychological defence mechanisms that often reinforce the reproduction of extant worldviews and systemic behaviours (Wolfe & Tubi, 2019)—which are, of course, themselves drivers of climate change. It is hardly a leap to propose that the philosophies of irrealism and the consequent post-truth culture are both drivers of—and increasingly defence mechanisms to cope with—the existential threats posed by the metacrisis. Philosophical irrealism is therefore a kind of terror management strategy. Ironically, a key aspect of coming back to life and averting catastrophic socio-ecological collapse
(i.e., mass death) is precisely in embracing the reality of death, thereby bringing our worldview into alethic resonance with it. When we embrace death, we are embracing transformation, embracing surrender to the mystery of life, embracing the unknown, embracing space for renewal and rebirth, and therefore embracing the possible. For it is in embracing the reality of death in life that life becomes about something deeper—more vast, meaningful, intellectually uncertain, and uncontrollable—than our own individual existence (and its demi-real construal as existentially siloed, dissociated, and alienated from the rest of reality). Living life from a consciousness of the reality of death seems to intrinsically attenuate the sense of egoistic ‘grab’ for power and therefore the impulse to control and manipulate nature and our fellow human beings, to superimpose our demi-real identities and derivative ideas onto the alethic field of reality. Embracing the principle of death also tends to engender a sense of wider and deeper meaning and value of life, expanding our sense of what matters most—after our embodied personalities are gone. Further, turning toward the principle of death allows us to embrace the emergent possible—it allows us to embrace what the sociologist Ulrich Beck (2016) called ‘the metamorphosis of the world’ that is driven by a deeper, wild intelligence that can ‘see’ a bigger picture. From the perspective of the caterpillar, there is a phase in the metamorphosis that is a kind of ‘death’—they build a cocoon around their bodies and then release enzymes that melt or dissolve nearly all of their bodies into mush—leaving only the so-called imaginal cells or discs, which use the mush as ‘food’ from which the chrysalis and eventually the butterfly starts to form and emerge. This principle is ubiquitous in living systems; any organic gardener knows that waste is food, death and decay create the compost and humus that is the condition for the possibility of transfiguration, new and vibrant life, and regeneration. Such a contemplative
wisdom-insight thus reveals death as the dialectically negative moment in the process of transformation—going beyond (‘trans’) the old form (‘formation’). Until the old form has been dissolved, there is literally no possibility for something new to emerge. As dialectical critical realism powerfully demonstrates (Bhaskar, 1993/2008), determinate absence is something ontologically real—it is a generative force that indeed is the meta-principle of transformation, evolution, and emergence. Understanding death as a kind of ontological negativity that guards against stagnation and drives renewal and generativity may help us to cultivate a deeper sense that there may be a profound, transpersonal intelligence undergirding the present cultural and institutional decay and chaos that we are living through. It may be that humanity is on the way out and the chaos we are experiencing is more like the beginning of the end of the human civilizational form—or, rather, it may be that this time is more akin to the beginning of a radical metamorphosis wherein the caterpillar’s body starts dissolving, seeding the possibility of a new kind of metamodern or eudaimonistic society to emerge. Either way, there are no real, life-enhancing advantages to denying death. Thus, we need a wisdom culture that honours and even celebrates death and grief, with the understanding of its dialectical interrelationship to the flourishing of life. Moreover, embracing death and grief tends to increase our sense of gratitude for the immanent creation of life, and attune us to that which matters most in the face of bodily death. If the reality of death is truly integrated into one’s consciousness and worldview, by recourse the sphere of one’s ‘ultimate environment’ and ‘ultimate concern’ (Fowler, 1981) tendentially de-centres or widens. Materialistic concerns are recontextualized: they become no longer matters of ultimate and intrinsic concern, but rather matters of relative and extrinsic concern—means to the deeper ends of collective spiritual flourishing. In this way,
the culture of consumerism no longer can have the same enrapturing allure that it once had—for consumption can only be a ‘religiously’ cathected ritual within the context of a disenchanted, demi-real worldview that denies the reality of death and the structures of deep meaning and purpose that tendentially are born in the wake of the (psychological) death of the denial of (physical) death.

On a deep level, humanity has yet to realize the alethic truth of our self-reflexive, meta-aware nature: we have been given the logos of self-reflexive consciousness and the creative and agential powers that it confers. Like the myth of Prometheus, the stolen logos of the gods is in our hands—the word, the light, the capacity to participate in the creation of reality. But wielding this creative power of the gods can only be sustained if we simultaneously develop the wisdom, love, care, compassion, and prudence of the gods. Otherwise, the asymmetric development of our technical intellect over our moral and spiritual faculties appears to be a self-terminating dynamic for our species, as Daniel Schmachtenberger (2021) and others have argued.

And wisdom, I would argue in the Socratic tradition, begins with epistemic humility. For humility confers receptivity and deep listening as the starting point for the right use of the logos. The reality that is prior to and independent of us—and created us as creative beings—must be respected, revered, and even loved as our sacred source. For in such a stance of loving humility for the deeper field of reality and nature, there is a deep listening—and in that deep listening there is an activation, an activation that is a condition for the possibility of gnosis, or
the alethic revelation of reality. For when we deeply presence reality with true humility, care, and compassion—that which is absent in our worldview tendentially becomes present; that which is enfolded as a real potential, through right injunction or method, is actualized and known semiotically in experience. The absence of the alethic truth of the logos—or our own self-reflexive consciousness and agential creativity—tends to be absented in the presencing or pure-hearted contemplation of reality. The alethic truth of nature$_2$ (as an asymmetrical unity or identity-in-difference with nature$_1$) can only be revealed through a deep and reverent listening to the soul whispers of the field of nature$_1$, for in that listening, the golden thread of alethic resonance between the field of reflexive mind (nature$_2$) and nature (nature$_1$) lights up, revealing their differentiated, asymmetrical, and dialectical unity. As this asymmetrical unity is brought to consciousness and integrated into our worldview, the torn fabric of the world is rewoven with golden thread, and all that is good, beautiful, and true resounds in the alethic resonance of the one song (uni-verse) of reality. The world of demi-reality resounds in a deafening dissonance within the overarching harmonic resonance of truth. The ‘natural frequency’ or root note and inseparable rhythm$^{253}$ of nature$_1$ is revealed as the necessary condition for the possibility of the harmonic inflection and melody for nature$_2$. Demi-reality could be construed as akin to conceiving of harmony and melody without a root note—like conceiving of an object without a ‘natural frequency’; it is in fact a nonsensical or delusional proposition—but lacking that awareness does not stop one from playing a dissonant song,

$^{253}$ Rhythm and pitch (or frequency) are intrinsically concatenated, since pitch is defined solely in terms of a diachronic frequency (or rhythm) defined by the temporal interval between the peaks and troughs of the sine waves that undergird all frequency, vibration, sound, energy, light, and matter.
seemingly unaware of the basis of consonance, harmonics, and the principle of (alethic) resonance.

And that is the crux for humanity: by virtue of being endowed with the logos—the capacity for concept-dependent self-reflexivity and contingent agential action—we can sound whatever logoiic note we want in the great field of life. As the post-Kantian post-modernists have highlighted—we can in some sense create whatever reality we want relative to the possibility space conferred by antecedent structures. It is just that some of the notes we sound in the enactment of our self-reflexive agency resonate with the alethic truth of the field of nature, while others resound in a definitive and transfactual dissonance vis-à-vis nature. And this dissonance, with sufficient repetition, reproduction, and (technological) amplification can start to drown out the often more subtle and sublime tones of the nature field. And this is precisely what the Western-dominated field of human consciousness and culture is doing—self-referentially ‘harmonizing’ to the sound of its own (dissonant, demi-real) voice, marching to the beat of its own (out-of-time) drum, and making such a ruckus that it can hardly hear anything else in the great symphony of life. One truly must listen to harmonize; and to listen, one must stop making noise. Understood as such, events such as the COVID-19 pandemic could plausibly be interpreted as nature’s intelligence attempting to find the most benevolent means of supporting humanity (nature) to quiet down and listen—‘listen as if your life depends on it’ (because it does)—so that we can learn where we are out of alethic resonance with the reality

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254 The interpretation of benevolent intelligence here is rooted in the apparent way in which COVID-19 seems to be almost perfectly attenuated to a level wherein it is just dangerous and deadly enough to get humanity’s attention and force us to interrupt our incessant activities that have taken us to the brink of socio-ecological collapse—or, we might say, ‘the dissonant cacophony of our demi-real delusions’—but not any more dangerous or deadly.
of the world, particularly the climate system, and how we can transform to come into a deeper resonance. It is as if every crisis event is a choice point, offering up an opportunity for attunement and learning about the ways that our worldview and civilizational structures are in dissonance with the alethic field of nature. Michael Bauwens (2020) articulates a similar dynamic in terms of an impending series of ‘pedagogical catastrophes’ that are driving us ultimately to transform our social systems to come into greater resonance with the boundary conditions of nature; he is worth quoting at length here:

Corona is a serious crisis, but the climate is a much more serious one. In a paradoxical way, the global mobilization against Corona, despite the weakness and mistakes, has shown what can be done, and how fast institutions can adapt and change their choices once our life, and thus their legitimacy, is at stake. This bodes well for climate change adaption and ecological transformation. But make no mistake, this is just one of the crises we will need. The deep transformation that we need for this bifurcation requires a ‘mutation of consciousness’ on a par with the ones we had in the 11th and 16th century in Europe. Though this time it will need to be global and fairly ‘simultaneous.’ We are not there yet, but we’re definitely seeing strong premises for it, and for which this crisis acted as a revealer. This is just the first of the pedagogical catastrophes that will force the necessary transformations to a new stable system that lives within the confines of nature and realizes its interdependence with all other life forms. It will need to escape the historical cycle of pulsation between extractive regimes leading to ecological crisis, and the regenerative responses that human societies have always brought. Instead, we will need to move to a steady-state economic and social regime that can last many centuries and millennia (pp. 29-30).

Such a construal of the interaction or dialogue between humanity and nature, as I have argued for in this thesis, is not a form of pre-rational animism, anthropomorphism, superstition, or ‘magical thinking’ in the pejorative sense. Rather, it reflects a rational and post-rational mode of thought that has finally broken free from the self-referential chains of Kantian and post-Kantian irrealist consciousness—it has taken a momentous leap out of Kant’s correlationist circle or ‘back eddy’ and found its way back and forward into the great river of life. For is it magical thinking to argue that nature—which created us after all—could have the capacity to
be in intelligent interaction or trans-semiotic ‘dialogue’ with us?\textsuperscript{255} I would indeed argue that this very capacity to ‘listen’ to the world—to listen to alethic tones of nature’s song—is a condition for the possibility of humanity’s survival and flourishing. Our tone-deaf, irrealist culture needs to cultivate the virtues of humility, receptivity, and \textit{listening}, so that we might find a renewed attunement to that sacred note of \textit{alethic resonance}—that golden key to unlocking the metacrisis and birthing a eudaimonistic society. Visionary realism is thus a philosophy of resonance—a philosophy of frequency, vibration, and attunement, understood both metaphorically and literally. As Nikola Tesla said, “if you want to understand the true nature of the universe, one must think in terms of energy, frequency and vibration.”\textsuperscript{257} Further, visionary realism is a philosophy of music (\textit{mousikē}, ‘of the muses’) in the deepest sense of reflection or meditation—sourced in a space of wonderment, awe, and reverence—poised to receive a dream or vision from the universe (the ‘one song’) that can be actualized through our participatory expression. In this way the human is understood as a resonator function of reality, which can re-weave the universe in wholeness. Visionary realism is also a philosophy of attunement to the natural frequency of reality, a philosophy in service to the telos of dialectical \textit{harmonia} (ἁρμονία).\textsuperscript{258} That is to say, it is a philosophy that aims to forge a joining or fitting together of contrasting elements—the world and the mind, being and thought, humanity (nature\textsubscript{2}) and nature (nature\textsubscript{1}), the ontic and the epistemic—in agreement, concord, and

\textsuperscript{255} This can be translated for the materialist reductionist as follows: nature’s state is constantly feeding back to us the extent to which our collective behaviour is aligned with its law-like tendencies and boundary conditions, even if construed in Cartesian-Newtonian terms as inert, devoid of meaning, and operating according to mechanical, clockwork-like laws.

\textsuperscript{257} This quote is attributed to Tesla. See: \texttt{www.quora.com/What-secrets-was-Nikola-Tesla-alluding-to}

\textsuperscript{258} \textit{Harmonia} is the ancient Greek word meaning ‘joint, agreement, concord,’ or as a verb ‘to fit together or join.’ Thus, for the Greek philosophers, harmonia referred to the phenomenon in which a combination of contrasting elements (e.g., higher and lower musical notes) fit together or join in agreement, concord, or differentiated unity.
differentiated unity. This way of understanding the dynamics of ecological and social reality, interior and exterior reality, can, I argue, help to activate our emergent, self-organizing collective intelligence in the face of the trajectory of self-termination that humanity is currently on.

**Metacrisis as a Kairos**

Naming the world situation as a ‘metacrisis’ arguably can be helpful in terms of its descriptive-explanatory accuracy, as I have tried to demonstrate above. However, like all notions, it not only has its dignity, but also its disaster. The word ‘crisis’ comes from the Greek *krisis* (literally ‘decision’), denoting a turning point in the course of a disease, when a decisive change must come, leading either to recovery or death. However, in contemporary culture the word seems to have taken on a rather negative connotation, largely synonymous with a dire situation or desperate emergency. Thus, in the social imaginary, the idea of crisis or metacrisis can potentially invoke an overwhelming or pessimistic sense that ‘everything is headed for doom.’ However, this is a misunderstanding of the idea, which, I argue, is more neutral, pointing both toward the opportunity to a breakthrough to new and higher-order potentials, as well as the possibility of catastrophic breakdown. Therefore, to balance our understanding of the notion of crisis or metacrisis, the sense of opportunity in crisis needs to be drawn out and accentuated. As such, I argue that the metacrisis can aptly be understood in terms of the ancient Greek notion of *Kairos*, meaning the ‘right moment’ or ‘the opportune’ (White, 1987, p. 13).
The ancient Greeks had two words for time: Chronos and Kairos, both of which were personified in their mythology as gods.²⁵⁹ Kairos refers to a propitious, critical, or opportune moment for decisive, right action. It is a form of time that stands in contrast to the ancient Greek notion of Chronos, or conventional linear quantitative time. Kairos, on the other hand, is a kind of quality of ‘eternal’ or non-linear time that signifies the possibility of amplified action. The notion of Kairos seems to have some referential overlap with that of crisis, but it connotes more of a sense of auspiciousness and opportunity—the perfect timing, the opportune moment, the moment of enlightenment, truth, or reckoning—that fleeting, blink of an eye moment when a window of opportunity opens, stretching the fabric of space-time (Wendt, 2015), wherein decisive and disproportionally efficacious action can be precisely executed before it slips away. A Kairos is a turning point, a rare and precious moment in which the right action on the smallest of scales can cascade into a world-changing force.

Kairos also has etymological connections to archery, wherein it points to a ‘penetrable opening, an aperture’ through which an archer aims, reflecting the many obstacles that an arrow must successfully pass by to hit its target. This is akin to the idea of ‘threading the eye of the needle’ in the art of weaving, which Kairos also connects to. Indeed, the metacrisis is a potent and opportune moment wherein we have a fleeting chance to take aim for planetary flourishing and thread the needle or hit the mark. Kairos is an analogue for crisis, but unlike crisis and its often-

²⁵⁹ Kairos was personified in Greek mythology as Caerus, the god of opportunity and auspicious timing. The myth of Caerus helps to illumine some of the deeper meaning of the notion of Kairos. Caerus, the youngest son of Zeus, is sometimes depicted as holding a razor or a set of scales while balanced on a sharp edge, ready to sprint forth with his winged feet to seize the opportunity before it vanishes. Caerus only has one lock of hair draped over his forehead, offering one chance to seize hold of it without hesitation. But one must be timely and decisive, because if his one lock of hair is missed, the entire back of his head is completely bald and there is nothing to hold onto.
pessimistic connotations, Kairos underscores the idea of crisis as opportunity for great and rapid evolution towards a eudaimonistic society.

Moreover, Kairos appears to resonate with the notion of self-organizing criticality (Bak, 1996) or a bifurcation point in dynamical systems theory (Abraham, 1985; Abraham & Shaw, 1992). At critical points of instability, systems hit a bifurcation point wherein they enter a chaotic phase and are thereby governed by emergent strange attractors, expressing an extreme ‘sensitivity to initial conditions’ (the so-called ‘butterfly effect’) wherein very small changes on the micro-level can be dramatically amplified through positive catalytic/feedback loops to effect macro-level changes or events. The notion of Kairos can be understood as an ancient proxy to the contemporary scientific notion of a bifurcation point illuminating the phenomenon of a discontinuous rupture and momentary opening in the otherwise stable fabric of linear spacetime, presenting a unique and fleeting window of opportunity for radical non-linear social change.

In addition to ancient Greek mythology and dynamical systems theory, the emerging field of quantum social science (Barad, 2007; Haven & Khrennikov, 2013; O’Brien, 2016; Wendt, 2015) also is broadly suggestive of the possibility of such non-linear social change and highlights the power of consciousness and agency therein. As O’Brien (2016) explains, “quantum social theory supports a holistic, nondualistic worldview that emphasizes non-local entanglements, where consciousness and free will can influence structures and systems, both of which exist in a quantum world of potentiality” (p. 622). Insights from quantum social theory, O’Brien
continues, “can potentially empower individuals and groups through a transformed sense of agency, enabling them to influence what are currently represented as classically ‘linear’ pathways in radical, nonlinear ways” (p. 623).

Similarly, Bhaskar (2002/2012a) using transcendental philosophical methods, develops a theory of generalized co-presence—an entanglement or enfoldedness at the most fundamental level of everything within everything else—to argue that any movement, however small, toward alethic truth and universal free flourishing will tend to invoke a reciprocal response in all other similarly situated beings, thus magnifying such actions in a dialectically resonant way. Such action in alignment with alethic truth, Bhaskar (2002/2012a) argues, is:

the mechanism of the universal silent revolution, a mechanism which is clear but whose form and effect cannot be predicted. However, given this mechanism, no-one should underestimate the effect of any act they perform. Historicism, in the sense of predicting the future, is totally flawed. All we can say is that if the species, and our planet in a recognizable form, is to survive, only through such mechanisms as this will it happen (p. lxxx).

We can say, therefore, that there is a broad consilience between dynamical systems theory, quantum social theory, and Bhaskar’s transcendental philosophical theory of co-presence that is suggestive of the possibility of radical, non-linear social change, implied in my construal of the notion of Kairos.

In short, the metacrisis is a Kairos, an opportune and decisive moment in which radical, non-linear social transformation may not only be possible, but necessary as an evolutionary survival imperative. Life has, again and again, gone through evolutionary crises like that of the ‘great oxidation event’ wherein life on earth was threatened by an excessive build-up of oxygen in the
atmosphere produced by single-cell cyanobacteria, leading to a radical and non-linear evolutionary emergence of multi-cellular organisms that ‘solved’ the problem by consuming oxygen, setting the stage for the Cambrian Explosion—an unprecedented time of emergence and flourishing of new life forms. Ultimately, we cannot know what the outcome of the metacrisis will be for humanity. Yet we can look to this ancient crisis to be reminded of just how radical evolutionary emergence and transformation can be. Perhaps human civilization will not make it through this bottleneck, or perhaps now is our Kairos moment wherein we will rise together towards the possible emergence of a eudaimonistic society.

Eudaimonia is a Greek word with a rich, multivalent meaning. Often translated as ‘human flourishing’ or simply ‘happiness’ (eu, well-being; daimon, guardian spirit or ‘inner self’). It is linked philosophically with Aristotle (2014), especially his *Nicomachean Ethics*, for whom it was the highest good. A eudaimonistic society is a society characterised by the free flourishing of collective purpose and potential, embodying (holistic) health, (non-hedonic/depth) happiness, and (open, evolving) wholeness. In critical realism, it is the notion of society in which false but causally consequential (or demi-real) sociocultural forms have been shed and relations of oppression, alienation, and exploitation no longer exist, such that ‘the free flourishing of each is the condition of the possibility of the free flourishing of all’ (Bhaskar, 1993/2008, 2002a, 2002b, 2002d). The prefix eu- (Gr.) refers to ‘well-being’ or flourishing, while daimon (Gr.) points to the ‘guiding spirit’ or soul’s guiding purpose. Thus, eudaimonia can be understood as the free flourishing of the soul’s purpose where the individual and the collective are dialectically constellated such that the free flourishing of any individual cannot be fully realized without the
free flourishing of all beings. As such, the eudaimonistic society is a society in which all are free
to realize and actualize their unique singularity or purpose—the free flourishing of the deepest
purpose, dialectically realized individually and collectively. The emergence of a eudaimonistic
society involves designing and forging cultural and social formations that are resonant or
aligned with the alethic truth of the field of nature, protect against demi-real and oppressive
structures, and support the actualization of free flourishing for each and all.
CHAPTER 7—Conclusion: Metatheory, Education, and Planetary Flourishing

Only a comprehensive switch from the narrowing specialization and toward an ever more inclusive and refining comprehension by all humanity—regarding all the factors governing omnicontinuing life aboard our spaceship Earth—can bring about reorientation from the self-extinction-bound human trending, and do so within the critical time remaining before we have passed the point of chemical process irretrievability. Quite clearly, our task is predominantly metaphysical, for it is how to get all of humanity to educate itself swiftly enough to generate spontaneous social behaviors that will avoid extinction.

R. Buckminster Fuller

This thesis was an inquiry into the intellectual resources needed to address our complex, planetary crises. Broadly, I aspired to articulate the contours of a mode of metatheory apt for addressing the metacrisis and expound its potential significance as a causal force of holistic socio-ecological transformation. I also sought to develop a particular metatheory that can substantively serve our understanding and response vis-à-vis the metacrisis. I attempted to advance these objectives, first, by reflection on the nature, role, and function of metatheory in geo-historical context; and, second, the development of the contours of a particular metatheory through an exploratory-dialogical encounter between what were deemed to be two of the most sophisticated contemporary integrative metatheories: namely, the European-based philosophical metatheory of critical realism, founded by Roy Bhaskar, and the American-based metatheory of integral theory, founded by Ken Wilber. I argued that there appear to be essential components of each respective metatheory—not found in either alone—that are necessary in forging an adequate integrative meta-approach. As such, I sought to transfigure and synthesize aspects of the complementary panoptic visions of both critical realism and integral theory into a more encompassing and efficacious integrative approach to the

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understanding and response to the metacrisis (and complex phenomena generally). To do so, I deployed a philosophical methodology of hermeneutical dialectics (detailed in Chapter 1 and Appendix Two), along with a more specific method of immanent critique in the context of in-depth literature study and in-depth hermeneutic dialogue centred around an extended symposium series bringing together leading scholars from both metatheoretical streams. Importantly, my method of synthesis was a non-preservative one, meaning that elements of each metatheory were critiqued and negatively transfigured to achieve systemic coherence and logical commensurability between the two.

The principal aim of this thesis was to contribute to the emergence of a eudaimonistic society by developing a more adequate integrative metatheoretical approach to understanding and responding to the metacrisis. This overarching aim was explored via two key sub-aims, corresponding to the exploration of: 1) the philosophical aspects; and 2) the cultural and psychological aspects of the metacrisis. I then translated my primary aim into my overarching research question: What are the characteristics and qualities of a new metatheory that would afford a more adequate understanding of and response to the metacrisis? My primary aim and question amounted to an inquiry into the nature of the metacrisis, attempting to develop the intellectual tools to develop an adequate understanding of the phenomenon. To do so, I first had to clarify and revindicate metatheory in a twenty-first-century context, offering an overarching definition and updating it in important ways by developing the notion of, and criteria for, integrative metatheory 2.0. Integrative metatheory 2.0 was contrasted with metatheory 1.0 or ‘old school metatheory’ and situated in its geo-historical context. This work
was done with the intention of framing the broad interdisciplinary field needed to understand the metacrisis, and complex phenomena generally. Notably, I clarified two distinctive modes of metatheory corresponding to its philosophical and scientific mode and made the case that these modes are complementary and syncategoremat and ideally ought to be integrated in any comprehensive metatheoretical approach. In Chapter 3, I assessed the most advanced metatheories arising in the wake of postmodernism and looked at the essential ontological and epistemological contributions of critical realism and integral theory, respectively. In Chapter 4, I examined the essential ontological and epistemological contributions of both schools, critiqued and identified their most salient contradictions (aporias) and absences (lacunae), and forged a visionary realist synthesis of the two. In Chapter 5, I elaborated visionary realism as an emergent metatheory, apt for understanding the metacrisis. Specifically, I articulated a pandimensional realism and a transcendental evolutionary realism, thus arguing for the objective reality and ontological intransitivity of interiority and its objects, as well as interior development or evolution, respectively. I then offered a synoptic overview of visionary realism and its core elements or principles, which are: 1) ontological realism and comprehensiveness; 2) epistemic relativity and reflexivity; 3) methodological transparency and judgemental rationality; 4) integrative pluralism; 5) emancipatory; 6) visionary; and 7) evolutionary. Chapter 6 applied visionary realism to understanding and responding to the metacrisis, articulating its emergent holistic structure as a depth-stratified laminated system. I then discussed the idea of alethic resonance as a core meta-principle around which individuals, communities, and societies might organize themselves, ultimately framing the metacrisis as a Kairos or opportune moment in which to move towards a eudaimonistic society.
Reflecting on the overall research question and aim, the metacrisis is ultimately an *epistemic-phronetic crisis* of how we understand ourselves and the world. It is a crisis of sensemaking and meaning-making—a crisis of erroneous and demi-real worldviews—rooted largely in erroneous and demi-real metatheories. Specifically, it is the overall irrealism and partiality of our dominant worldviews and metatheories that drives the metacrisis. It is the lack of a ‘cosmovision’ (Rowson, 2021) born of the resonance of the alethic truth of the world.

We need a vision and collective way of life that honours the truth and reality of the world as something sacred, while humbly acknowledging our intrinsic epistemic fallibility and the impossibility of ever reaching the receding horizon of complete or absolute knowledge. We need a vision that acknowledges the complex recursive relations between human being and human knowing—the participatory dance that we are in as an emergent and differentiated yet vulnerably dependent part of nature, graced with Promethean powers of reflexive mind and agency that can radically transform the world for better or worse. We are called to reside between and beyond the polarity of humility and hubris—to be both reverent and poised, to own and hone our power while remaining sensitized and attuned to the broader reality of nature in which we reside and without which we would not exist.

Amidst all this somewhat arid talk of ontology and epistemology, it is crucial to note that these debates have profound, far-reaching implications for real-world practice and social and ecological well-being. Debates about what is real and how we know ultimately invoke the normative and political aspects of social life. As I have argued throughout this thesis,
ontological and epistemological questions are key determinates of a formative process that
determines a view of who we are as human beings, our conception of nature, the divine, our
ethical and aesthetic values, and our social imaginary. And the totality of those perspectives—
our worldview at large—is deeply implicated in our contemporary practice and social order, as I
have argued. My inquiry, while somewhat sprawling and circuitous in some ways, has been an
attempt to retroductively explore the deepest causal forces on the level of mind and culture
that cascade, through their second- and third-order effects, into the macro-structural dynamics
and problem fields that we call the metacrisis. These metatheoretical, ontological positions are
the micro-level ‘initial conditions’ that macro systems dynamics display a great sensitive
dependence on, à la the so-called ‘butterfly effect’ of chaos and complex dynamical systems
theories (e.g., Lorenz, 1993). That is, these deep ontological moves may be akin to a butterfly
flapping its wings in Peking and eventually causing a storm in New York. In my argument,
however, this effect happens through a cascading of emergent, supervenient ontological levels
from philosophy to culture to social and technological systems to ecological systems. Pulling
back from our given method and practice to a deeper level of ontological and epistemological
metatheory is very important, as we start to see the ways in which our manner of approaching
our practice is profoundly shaped by our basic ontological and epistemic disposition. Take for
example the ontological and epistemological position of the epistemic fallacy and its impact on
how we see ourselves in relation to nature, building our practices and institutions on that
vision. As the critical realist Andrew Collier (1994) put it,

If there is a single philosophical idea which reflects more closely than any other this commercial
(rather than technological) spirit, it is the epistemic fallacy, which reduces nature to our cognitive
appropriation of it, just as this spirit reduces it to our economic appropriation of it. This epistemic
fallacy has dominated philosophy for just the same period. In offering us the chance to break
decisively with this fallacy, and the consequent anthropocentric world-view (Russell’s ‘three
centuries of subjectivistic madness’), Bhaskar’s realism makes possible [...] a much greater respect for the integrity of things independent of us (p. 149).

As this passage suggests, our ontological and epistemic suppositions are fundamentally intertwined with our collective social formations and ecological well-being—and we can infer from this that our dominant irrealist philosophy in these domains desperately needs to transform. This transformation needs to take us beyond modernity’s ‘subjectivistic madness’ and related assertion that the world was made for us to define and manipulate, adopting a vision that respects nature’s sovereign majesty and deep intelligence. An anthropocentric philosophy that arrogantly reduces nature to our cognitive and economic appropriation of it will certainly not provide an adequate metatheoretical foundation or underlabouring for a new social formation that can resolve the core problem fields of late modernity that have manifested the metacrisis.

As these profound social and ecological crises of the twenty-first century indicate, we are being forced at a species level to move beyond vulgar anthropocentrism and the irrealist philosophy of the (inter)subject—to honour the integrity of things and beings independent of us, while also coming to a greater wisdom and humility with respect to our own epistemic and agential powers as a species and how they can be rightly used to support a just and thriving world for all. In light of the intractable global crises that we face, it does not seem at all far-fetched or anthropomorphic to suppose that the world itself may be telling us something—that the reality principle or natural necessity may be asserting itself—and thus we need an epistemically sophisticated (neo-)realism—or integrative metatheory 2.0—that can help us more keenly
listen to the soul whispers of the field of nature, honour reality, and unfold the radical opportunities for collective spiritual maturation that these challenges seem to ultimately (re)present.

Perhaps, I will be so audacious as to suggest, something like a visionary realism could potentially offer precisely the kind of intellectual resources that are urgently needed on the planet right now, providing an orienting metaphysics of reverence for reality and the wondrous natural world, a new collective self-understanding, the underpinnings of a new mode of sensemaking that could help usher in a cultural enlightenment 2.0, and an axiological imperative to act with wisdom in service of a Eudaimonistic planetary society. In their own right, I argue that both CR and IT (and other integrative metatheories) are harbingers, on a formal intellectual level, of an emergent cultural formation or (neo-)integrative worldview (Benedikter & Molz, 2011; De Witt et al., 2016; De Witt & Hedlund, 2017; A. Hedlund-de Witt, 2014), perhaps somehow responding to the whisperings of a higher-order reality or hermeneutic attractor,261 which they importantly shape and are recursively shaped by. Yet

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261 The German philosopher Karl Jaspers (1968) was the first to propose the notion of the Axial age, ranging from approximately 800 to 200 BCE. This period witnessed the essentially synchronic manifestation of many of the world’s great wisdom traditions, including the first Greek philosophers (e.g., Thales, Pythagoras, Plato, and Aristotle), Siddhārtha Gautama Buddha, the Bhagavad Gita, Zoroastrianism, Confucianism, Taoism, and the Jewish prophets (from Isaiah to Ezekiel). Also, see Karen Armstrong’s (2006) work for a more contemporary view on the Axial period. Much like the way in which many of the world’s great wisdom traditions of the Axial age—from Platonism to Buddhism to Taoism—synchronously emerged across the globe (Jaspers, 1968) devoid of direct communication or physical mediation, one might speculate that the vanguards of the metamodern, integral age (e.g., CR and IT) seem to be being birthed together, each revealing and bringing forth unique facets of a larger emergent totality. Experimental evidence generated by scientists such as Sheldrake (1981/2009) suggests that patterns of actual events and behaviours tend to resonate with and formatively influence other similar patterns of actual events, which apparently cannot be explained via material cause or direct physical mediation, but rather must be explained in terms of deeper generative mechanisms, or morphic attractors, that probabilistically influence the formation, patterning, and evolutionary trajectory of a given phenomenon on the level of the actual. This is one speculative hypothesis (the ‘hypothesis of formative causation’) that might explain such non-locally co-
perhaps it is possible that in their (self-)transformation and joining forces in their shared emancipatory commitments they can become something greater than their sum—a force that might thereby more powerfully address urgent global challenges of the twenty-first century metacrisis and help to forge the foundations for the possibility of a sustainable, eudaimonistic planetary society in which all are free to flourish.

It should be noted, however, that the worldview that visionary realism underlabours for is not entirely novel, bearing some deep structural resemblances with Indigenous worldviews, for example. Visionary realism’s central meta-principle of alethic resonance, for one, could be likened to the key Indigenous idea or principle that the Australian Indigenous scholar Tyson Yunkaporta (2019) describes: “if you don’t move with the land, the land will move you” (p. 2). There is a sense of intrinsic reverence, respect, listening, attunement, and responsible, symbiotic participation expressed in this principle—an anti-narcissistic, realist ethos that dynamically and ongoingly calibrates and evolves knowledge systems and traditions to meet and align with the constantly changing reality of the ‘land’ or world. Indigenous worldviews tend to dialectically dance with the complex patterning of reality or the universe, rather than projecting their own fantasies and delusions onto the field of nature, as the modern West is emergent phenomena. See Marshall (2016b) for a compelling articulation of a “new axial vision” relating to critical realism and integral theory (as well as complex thought).

While there is much diversity of perspective and variation amongst the myriad distinct Indigenous tribes within and across the continents, there are arguably some valid generalizations and commonalities amongst Indigenous worldviews. For example, Yunkaporta’s (2019) research identifies “a broad, common descriptor of Indigenous ways of valuing, ways of being, ways of knowing, and ways of doing” (p. 246). Furthermore, as Yunkaporta and others argue, there are certainly elements of Indigenous culture that are not necessarily wise or noble, as is true of all cultures. Both the dignity and disaster, the virtues and the vices, the light and the shadow of cultures must be symmetrically considered in any helpful comparative analysis (in contrast to the all-too-common tendency to cherry-pick and compare the disastrous elements of one culture to the dignified aspects of another). That said, in-depth and nuanced analysis of these issues is beyond my scope here.
fond of, and which tends to lead to a “break down [of] creation systems like a virus, infecting complex patterns with artificial simplicity, exercising a civilizing control over what some see as chaos” (Yunkaporta, 2019, p. 3). Visionary realism, like Indigenous worldviews, reveres the reality of the world, aiming to dynamically resonate with it and preserve its complexity and wholeness in service of the flourishing of all of creation in perpetuity. Indigenous knowledge systems and wisdom practices emerged and evolved out of a sacred sensibility of radical reverence for, and receptivity to, reality. As Yunkaporta (2019) describes with respect to his distillation of the core of Indigenous praxis, this begins with a sense of spiritual respect for the intrinsic value, structure, and boundary conditions of things, followed by: a heart-centred deep listening as we connect and engage in an in-depth and reciprocal relational exchange; participating in an intellectual process in which we reflect on and curate the conditions for the clarification of a course of action; and finally we direct our shared knowledge into collaborative practical action, getting our hands in the dirt (p. 247). This cycle of Indigenous knowledge in practice is then ongoingly iterated, leading to new knowledge and praxis, learning, evolution, and adaption, as our knowledge tendentially moves into greater and greater alethic resonance with the land, creation, or reality itself. In this way, Indigenous thinking, I would argue, is realist to its core while also accounting for the seamless participation of the human in the whole of nature. Visionary realism arrives at similar conclusions to Indigenous thinking but does so from within the Western tradition via formal transcendental methods. Visionary realism arguably possesses transformative agency in that it demonstrates, by following the premises of the Western tradition (i.e., empirical realism) to their logical conclusions, that its internal contradictions generate a necessary architectonic transfiguration. This immanent critique and
transfiguration of the (post)modern Western worldview logically portends a new intellectual formation—a critical or visionary realist metatheory undergirding an emergent metamodern or integral worldview. In this way, visionary realism underlabours not only for the emergence of a metamodern worldview (a crucial function), but also underlabours for and valorizes Indigenous wisdom vis-à-vis the Western intellectual tradition. In this underlabouring function, visionary realism holds the potential to revindicate Indigenous wisdom in the face of Western colonialism and historical denigration of Indigenous worldviews as ‘primitive,’ ‘uncivilized,’ and the like.

As the Swiss-German philosopher Jean Gebser’s (1949/1985) metatheory of the mutations of consciousness posits, the integral mutation renders all the prior (archaic, magic, mythic, and mental) worldviews or structures of consciousness transparent. The integral is not just the next ‘higher’ mutation of consciousness, but it is also the negative transfiguration and synthesis of all the prior structures. The underlabouring that visionary realism offers vis-à-vis Indigenous worldviews reveals the harmonic resonance between Indigenous and integral worldviews, and some ways in which the integral needs Indigenous worldviews to actualize itself. Visionary realism provides a potential bridge from the Western tradition to the Indigenous, inviting its radical reappraisal and a new quality of respect and appreciation for its deep relevance vis-à-vis addressing the metacrisis and the survival and evolution of human civilization. While there are high-level resonances and similarities between visionary realism and Indigenous wisdom on the level of organizing meta-principles, it is also crucial to understand that Indigenous cultures possess deep knowledge of the substantive practices that put those principles to work in the uniquely textured concrete contexts of particular lands or ecosystems. That substantive
traditional ecological knowledge and practice is of critical import as we move deeper into the Anthropocene, as much of it emerged and evolved in a much less stable climatic regime than that of the Holocene epoch of the last 10,000 years in which Western civilization has taken shape. It is essential that Western culture reveres this wisdom, supports and empowers its Indigenous stewards, and seeks to come into respectful relationship and humble dialogue with it. For it is only through a synthesis of the best of Indigenous and Western wisdom and practice that we are to survive together as we navigate this brave new world of ubiquitous metacrisis and existential threat. Cultural enlightenment 2.0, if we are to achieve it, will thus be shaped not only by the leading-edge insights of integral or metamodern intellectuals and their metatheories, but also will be shaped in fundamental ways in dialogue with the visionary insights of Indigenous intellectuals, who (rather ironically) inspired and shaped the very inception of the European Enlightenment or Enlightenment 1.0 (Graeber & Wengrow, 2021).

Moving forward, we need more ambitious, metatheoretical projects and institutions, in dialogue and collaboration with Indigenous communities, that are dedicated to protecting humanity from existential risks and supporting inter-species planetary flourishing on the level of the Manhattan project (which paradoxically seems to have marked the beginning of the Anthropocene, as discussed in Appendix Four). At present there are far too few of these programs and institutions, and those that do exist are operating at far too small a scale on far too small of a budget. For example, this appears to be true of some of the best institutions with this general orientation, such as the Cambridge Centre for the Study of Existential Risk, The Civilization Research Institute (and its notable Consilience Project), the think tank Perspectiva,
the Harvard Human Flourishing Program, the Development Education Research Centre at UCL, the MetaIntegral Foundation, etc. These projects need governments and intellectually enlightened philanthropists to step up and fund these kinds of projects at scale if we are to avoid the radical financial and socio-political costs of insufficient action.

Addressing major problems requires that we coordinate our actions effectively at scale. Coordination at scale requires shared sensemaking and big-picture, metatheoretical understanding. Thus, strengthening the sensemaking capacity of leaders and citizens is necessary to address the metacrisis which threatens our societies and collective future. Improved sensemaking, crucially scaffolded by high-quality metatheory, leads to improved decision-making, which opens the possibility of intelligently and deliberatively evolving our technologies and socio-political systems—and particularly educational systems—to create a flourishing human civilization.

Visionary realism, along with other integrative metatheoretical approaches—such as critical realism, integral theory, complex thought, complex integral realism, the Nordic school of metamodernism, Game B, Edwards’ scientific metatheorizing, and so on—have a crucial role to play in terms of scaffolding and strengthening our capacity for effective and high-quality collective sensemaking in the face of the unprecedented complexity of the metacrisis. Such effective collective sensemaking is a necessary condition for the possibility of effective choice-making and the coordination of our actions at scale, as has been emphasized by Daniel Schmachtenberger, Zak Stein, and others with the Consilience Project (see e.g., Consilience
Project, 2021) and overlapping Game B community. Through this collective sensemaking, choice-making, and coordinated action at scale, we can progressively tune our social systems towards an alethic resonance with the field of nature, thereby facilitating social evolution towards planetary flourishing in a Eudaimonistic society.

Research, education, and the university at large ought to be central hubs for the empowerment of the activities of the lifeworld (lebenswelt) through metatheorizing—serving as a crucial tuning fork for alethic truth and wisdom vis-à-vis the discourse of the public sphere. But sadly the university has been largely—and increasingly—colonized by the reified cultural logics of the capitalist system (Habermas, 1987), which delimit our imagination about what the university is and ought to be (Barnett, 2013), tending towards a philosophy of education based on a philosophical anthropology of the human as ‘homo economicus’ and its corollaries of ‘reductive human capital theory’ (Stein, 2019a) and the university as a merely entrepreneurial institution whose central purpose is economic reproduction (Maxwell, 2014b). Despite the wide range of topics covered, the underlying theme of academic research and education ought to be about the development of integrative knowledge and wisdom in service of human flourishing in resonance with the field of nature. This thrust of this thesis draws inspiration from Nicholas Maxwell’s (2014a) compelling argument that the research and education of the academy ought to be devoted to the exploration of global, real-world, open problems much more so than it currently is. Moreover, Maxwell argues that academia generally ought to serve humanity in addressing the most fundamental question of all: how we humans (nature) with our self-

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See www.game-b.org/

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reflexive consciousness, free will, meaning, and ethics can survive and flourish with the context of nature. If we are to respond to the global metacrisis with more intelligence and wisdom than we have so far, argues Maxwell, this capacity must be learned—which in turn requires that the academy orient itself toward the fulfilment of such a grand task: we urgently need to bring about a revolution in universities and education generally so that the basic intellectual aim becomes the production and intergenerational transmission of not only knowledge (as crucial as that is), but also phronesis or wisdom—that is, the capacity to realize what is of value in life, for oneself and others (Maxwell, 2013) which arguably can be approximated in terms of collective actualization and flourishing. At present this is far from the case. This, then, leads Maxwell (2007) to refer to this mismatch as “the crisis behind all the others” (p. 1). Following Maxwell’s thinking here, the metacrisis can indeed be understood as an epistemic crisis—a crisis that has to do with our lack of adequate knowledge and wise understanding of the metacrisis. But how will we address the lack of knowledge and wisdom vis-à-vis the metacrisis other than through learning how to address it and close the gap—learning how to learn better and getting wise about our deficit of wisdom? Thus the metacrisis can legitimately be seen, on a root level, as a crisis of learning and education, as Maxwell (2014a, 2014b) and others (see e.g., Stein, 2019a) argue. Stein (2019a) elaborates the point:

There are no major global challenges that do not have critical educational dimensions. Many key challenges are primarily educational in nature. This is just another way of saying that changing the trajectory of the world-system requires changing how people think and act, which can only be done by finding ways to affect valued and needed transformations of human capabilities. Human development and education are often the elephant in the room when it comes to calls for systems-level change (p. 17).

Stein (2019a) makes a compelling case that the metacrisis—or the crisis beyond and behind the many global crises that we face—is fundamentally an educational crisis that has to do with a
kind of onto-epistemic decoupling or disequilibration between the complexity of our world
(and its ‘task demands’) and the complexity of our consciousness or cognition: “[t]his mismatch
between the demands made on us by the world and the capabilities we have to work with is
the great meta-crisis of our time, characterizing the struggles of individuals, organizations, and
nation-states” (p. 18). I concur, while emphasizing the important role that integrative
metatheory 2.0 can play for the academy and education generally (and, in turn, for humanity)
in actualizing its potential to wisely address the metacrisis. As I have argued, without next-
generation integrative metatheory, we cannot see the forest for the trees—so we are left to
‘wander in the wilderness’ together, without a map of the forest. An integrative metatheory
2.0, I argue, intrinsically involves a synthesis of knowledge and wisdom, of descriptive-
explanatory and normative modes of knowing, of ontology and axiology, of science and
philosophy, of reason and spirituality. Integrative metatheory 2.0 has baked into it an
awareness that there is no alethically true ‘modest witness’ (Haraway, 2018) or ‘view from
nowhere’ (Nagel, 1986) devoid of a normative or axiological stance. Merely technical-
descriptive knowledge cannot be produced through integrative metatheory 2.0. Integrative
metatheory 2.0, rather, is intrinsically emancipatory, visionary, and evolutionary—thus
possessing an axiological thrust that is aimed at serving the common good for humanity and the
planet and addressing the real-world challenges of life in more powerful and humane ways; in
other words, integrative metatheory 2.0 is rationally designed to foster practical wisdom
(phronesis) that can address the fundamental or ultimate—that is to say, spiritual—problems of
life that humanity faces. And in the twenty-first century, the most pressing and profound
problem facing humanity is that of the planetary metacrisis. As such, visionary realism, as a
particular instantiation of integrative metatheory 2.0, has been intentionally developed as a kind of collective meta-learning device or systemic scaffolding that might support humanity to garner an adequate understanding and ethical transformative response to the metacrisis. In other words, integrative metatheory 2.0 generally, and visionary realism particularly, can underlabour for the emergence of a planetary wisdom culture—a culture of engaged global citizenship for planetary flourishing.
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APPENDIX ONE—The Four Aspects of the Metacrisis (Unabridged)

Major changes in the state of the world have been unfolding since the dawn of classical modernism with the French Revolution of 1789 and the Industrial Revolution in the early nineteenth century, leading up to the period of high modernism beginning with the Revolutions of 1848 across Europe. Another major wave of change came with the post-World War II period of technological, economic, and geopolitical modernization and globalization. This was followed by the postmodern cultural revolutions of 1968 and the upheaval in Europe in 1971 that in effect protested the abstract universality of classical modernism, deconstructing the conventional cultural and social structures, while advocated for a more just and sustainable world. In 1989, with the beginning of the collapse of the Soviet Union, we entered a phase that Bhaskar (2002/2012b) called ‘bourgeois triumphalism’ exemplified by Fukuyama’s (1992) Hegelian notion that the modern West and its dominant liberal-capitalist ideology had ‘won the day’ and we had arrived at ‘the end of history.’ This triumphalism ironically peaked around 2000 just as the signs of modernity’s unravelling, such as climate change, began to come into focus. The 9/11 terrorist attacks of 2001 and the consequent ‘war on terror’ seemed to mark the imminent decline of modernity’s hubristic predict-control-conquer worldview. This trajectory was only compounded by the credit crunch and financial crisis of 2008. It now seems that the 2010s, with the rise of social media and artificial intelligence, have marked the beginning of yet another period of rapid and radical social change—the great unravelling—as the modern world system enters an accelerated phase of decline and decay toward collapse or radical transfiguration. We are now entering a liminal period—a ‘time between worlds’—a

268 My historical remarks here are inspired by Bhaskar’s critique of the philosophical discourse of modernity. See Hartwig (2011) for a concise overview.
phrase that Stein (2019a) popularized, inspired by Wallerstein’s (2004) notion that the early
decades of the twenty-first century mark a critical phase shift out of the modernist world
system and into whatever comes next.

Even through the course of writing this PhD thesis, there has been a marked quickening of
ecological degradation, an exponential acceleration of technological innovation that has
transformed the structure of our information ecology, a sense of ever more entrenched
political polarization and institutional decay, an atmosphere of psychological and cultural
unravelling, a compounding predicament of profound epistemic confusion and chaos—and the
glimmers of a new world on the edge of the horizon that has yet to dawn. In the period
surrounding the election of Donald J. Trump as president of the United States in 2016, the
world crisis actualized itself at a whole new level, generally moving from the more abstract
conceptual stratosphere of high theory to the ground level of direct experience and inexorable
impact on the lives of all. As I will delineate below, the four aspects of the metacrisis—eco-
social, ethical, existential, and epistemic—have all kicked in at a new level of concreteness
and intensity, packing a notable punch that relentlessly undercuts our attempts to deny
(whether explicit or stealth), dissociate, or otherwise defend against its causal powers. In this
way it is becoming increasingly clear that our attempts to double down on our defensive
posturing only deepen the problem—emboldening the resurgence of repressed realities and
therefore pushing us closer towards the edge.

What follows is an exemplary and synoptic, not comprehensive, discussion of the four aspects of the metacrisis.

“Stealth denial” refers to when the basic facts of a phenomenon (e.g., climate change) are understood or
accepted, but the full implications on the level of individual feelings, responsibility, and agency are not (Rowson, 2013).
The Eco-Social Crisis

The eco-social crisis is composed of interrelated ecological, technological, and political-economic crises. Beginning with the ecological crisis, a careful and critical scientific review of the state of the world reveals a planet undergoing rapid and potentially catastrophic ecological changes, many of which are or may soon become irreversible, at great consequence to the prospects of the future of human civilization and complex life on Earth. In a well-known article in the journal *Nature*, Rockström et al. (2009), defined nine interlinked planetary boundaries. According to the associated Stockholm Resilience Centre’s ‘Planetary Boundaries Framework,’ honouring the integrity of these boundaries would confer ‘a safe operating space for humanity.’ As of 2015, four of these nine biophysical thresholds have been overstepped, while two remain difficult to quantify, which means they too could potentially have been overstepped (see Figure 11) (Steffen et al., 2015b). These include the balance of the great biogeochemical cycles of the Earth system, which have been dramatically disrupted by human activities, perhaps most notably the carbon, phosphorous, and nitrogen cycles (Gruber & Galloway, 2008; Mackenzie et al., 2002). The former has led to changes in the global climate system and destabilized the generally favourable and stable conditions that humanity has enjoyed over the past 10,000 years of the Holocene epoch, roughly corresponding with the rise of human civilization at the dawn of the Neolithic revolution (Abraham, 1994).²⁷¹

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²⁷¹ Although the precise timeline of the Neolithic revolution and the origins of agriculture are contested and apparently shifting based on recent scholarship (see e.g., Graeber & Wengrow, 2021).
According to the increasingly certain assessments of the United Nations Intergovernmental Panel on Climate Change (IPCC) (IPCC, 1990, 1995, 2000, 2014a, 2014b, 2018, 2021), a Nobel Prize winning panel of the world’s leading climate scientists who review and synthesize all of the peer-reviewed science on the topic, global climate change is “unequivocally” anthropogenic (IPCC, 2021) and poses a serious, deleterious threat to human health, security, economic prosperity, and even the very fabric of civilization as we have known it during the Holocene.

272 See Cook et al. (2016) for a summary of their multiple meta-analyses undergirding the ‘consensus on the consensus’—that approximately 97% of climate scientists agree with the thesis of anthropogenic climate change with respect to recent global warming.

273 As Economist Lord Nicholas Stern admitted, “I got it wrong on climate change—it’s far, far worse.” See www.theguardian.com/environment/2013/jan/27/nicholas-stern-climate-change-davos
epoch. At the time of writing (2021), we have exceeded a concentration of 420 ppm CO$_2$ in the atmosphere (above the 350 ppm that many climate scientists argue is safe), a level last seen around 4 million years ago, during the Pilocene epoch (Lenton et al., 2019), and are on a climate change trajectory that, in some respects, is more rapid and intense—in terms of observed key impacts—than some of the projective scenario models from the IPCC in years past (IPCC, 2000, 2014a, 2018, 2021; Rahmstorf et al., 2012).

The IPCC predicts (i.e., without major reductions in greenhouse gas emissions) global food shortages, the inundation of coastal cities by rising seas, and a refugee crisis the likes of which the world has never seen. Climate change means, in addition to massive sea-level rise and the loss of many low-lying coastal communities (e.g., in Florida and Bangladesh), an increasing onslaught of more frequent and intense extreme weather events, including hurricanes/typhoons/cyclones, tornadoes, floods, droughts, wildfires, winter storms, heat waves, etc. (IPCC, 2014a, 2021), all of which we have seen unprecedented and well-documented empirical instantiations of within the past decade. If we look only at the

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274 The sixth IPCC report (IPCC, 2021) showcased major advances in attribution science, such that in many instances we can make a probabilistic causal link between climate change and a particular extreme weather event, wherein it would be ‘extremely unlikely’ to have occurred without climate change. For more on attribution studies, see: www.carbonbrief.org/mapped-how-climate-change-affects-extreme-weather-around-the-world

275 For example, extreme weather events in 2013 alone include the severe floods in England, as well as Colorado, USA; severe droughts across the American West, especially the worst drought on record in California; severe wildfires in Colorado, USA, and Australia; super-typhoon Haiyan, which struck the Philippines at near record intensity and left thousands dead; the tornado outbreak of November 17, 2013 centred in Illinois, USA, but also hitting Missouri, Michigan, Indiana, Kentucky, Ohio, and Tennessee; and the severe winter storms affecting the Eastern seaboard of the US, including the so-called ‘polar vortex,’ and severe flooding in India (killing 6054 people), to name just a few. Extreme weather events in 2019 include multiple record-breaking heat waves in Europe, the second of which from July 23–27 was the most intense heat wave in European history, and was associated with hundreds of deaths. In India, it was the wettest monsoon in 25 years, which killed 1750 people. The near-record warmth in the Arctic led to Arctic sea ice at the end of summer 2019 being tied for second lowest since satellite observations began. Hurricane Dorian hit The Bahamas as a category 5 ‘mega-hurricane’ on September 1, 2019,
extreme weather events of the last decade (since 2010), including unprecedented wildfires in Australia, the Amazon, and California, for example, it is clear that we are in the very early stages of a rising tide of climate change driven catastrophes—and we have not even reached 1.5°C of warming. Imagine what human society will be like at 2, 3, or 4°C warming.

The prospect of this intensifying barrage of extreme weather—not to mention sea level rise, increased risk of pandemics (which the IPCC has long warned of), and other factors, left unchecked, will almost certainly trigger a variety of gravely concerning socio-political events, including economic recession or worse, major global declines in agricultural yields and food production, scarcity of food and fresh water, disruptions on fragile global supply chains, and consequent increases in poverty, starvation and malnutrition, vast numbers of climate refugees, refugee/immigration conflicts, increasing cultural tensions, vexing ethical dilemmas, deep social instability, and eventually geopolitical conflict and outright kinetic warfare (Mach et al., 2019).

It is particularly the second- and third-order effects cascading from the barrage of extreme weather events that are of concern. Here we can see the systemic interrelations between the

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with sustained winds of 185 mph. Dorian was also the strongest hurricane ever recorded in the open Atlantic, killing 70 and leaving 300 people missing. On March 14 Cyclone Idai hit Mozambique, killing 964—the Southern Hemisphere's third deadliest tropical cyclone on record. Australia suffered its hottest and driest year on record in 2019 along with the most catastrophic fire season ever witnessed there, killing at least 21 people, scorching 15 million acres, and destroying 3500 structures. Typhoon Hagibis hit Japan unleashing unprecedented rains over Tokyo, causing catastrophic flooding across large parts of Japan that killed 98 and caused over $15 billion in damage. The United States recorded its wettest year on record, causing over $15 billion in damage. Finally, the March 12–14 Winter Storm Ulmer (‘the cyclone bomb’) that hit the central part of the country brought record flooding. See: https://blogs.scientificamerican.com/eye-of-the-storm/the-top-10-weather-and-climate-stories-of-2019/
ecological and geopolitical crisis, wherein changes in one sphere affect the other, and vice versa, in a bi-directional feedback loop. But in addition to the above geopolitical risks, the causal cascades and feedbacks of climate change may also disrupt the very foundations of the neoliberal capitalist economy and world system.

On an economic level, it does not take an erudite expert to see that sufficient increase in extreme weather events and sea level rise will eventually create potentially intractable fiscal crises (see e.g., Paulson, 2014). For example, in 2009, Hurricane Katrina in the United States cost an estimated $108 billion USD, paid primarily by insurance companies and taxpayers. In an insufficiently mitigated ‘business as usual’ climate change scenario, the global insurance industry, thus, is also likely to become an anachronism of the Holocene epoch, as rates of climate change driven extreme weather disaster cause damage and destruction to the built environment at rates that eventually outpace, and therefore preclude, economically viable repayment and rebuilding. Were this to occur, as has been warned by CGNU, the United Kingdom’s top insurer and the sixth largest globally, the global financial system and economy is likely to collapse, essentially inducing some degree of civilizational collapse.

Despite these sobering potential and actual realities, the robust scientific consensus on anthropogenic climate change, and the nearly impossible to ignore patterns of experienced weather, the fundamental trajectories of human-induced environmental degradation

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277 See www.gci.org.uk/Andrew_Dlugolecki.html
implicated in climate change—including the proliferation of greenhouse gas emissions—have not been altered (Biermann et al., 2012; IPCC, 1990, 1995, 2014b, 2018). Indeed, according to the 2018 IPCC Special Report on Global Warming, we have until 2030 (a mere nine years at the time of writing) to avoid catastrophic and possibly irreversible socio-ecological breakdown on a global level (IPCC, 2018). Moreover, the IPCC’s tendency towards conservative predictions should be considered here vis-à-vis the 2030 ‘deadline.’ For example, Steffen et al. (2018) argue that even if we were to keep warming to 1.5°C to 2°C (the goal of the 2015 Paris Agreement), we cannot rule out the possibility that a global cascade of feedbacks and tipping points could push the Earth system irreversibly onto a runaway ‘hothouse’ or ‘Venus’ scenario. It seems clear that such a scenario would all but ensure civilizational collapse, if not human extinction.

While such deadlines and potentials for existential catastrophes may or may not turn out to be predictively accurate or particularly helpful in galvanizing transformative change, they are nonetheless important signifiers that point to the real urgency and stakes of our predicament. Climate change is already causing great human suffering and ecological destruction, and holds the potential to undermine humanity’s capacity to survive, let alone thrive, in the twenty-first century and beyond. Unchecked burning of fossil fuels, deforestation, and unsustainable agricultural practices—especially the production of factory-farmed meat (Lappé, 2010; Wellesley et al., 2015)—will only increase this undermining of the conditions for the possibility of human flourishing and survival until critical thresholds are crossed and we experience
systems collapse (whether on an economic, social, or ecological level), and finally ‘existential catastrophe’ (Bostrom, 2013; Ord, 2020) and civilizational collapse.

But there is reason to believe that our ignorance is giving way to the painful realization of what human actions have done to the climate. In the last few years of the 2010s, the highly abstract hyperobject (Morton, 2013) of climate change appears to be actualizing itself ubiquitously now across the planet as an increasingly destructive onslaught of more frequent and intense extreme weather events (IPCC, 2018, 2021)—which we have seen unprecedented and well-documented empirical instantiations of since 2016. If we look only at the extreme weather events since 2016, including, for example, unprecedented wildfires in Australia, the Amazon, and California, it is clear that the effects of climate change have become something that many people now knowingly experience directly. According to survey research conducted by the Yale Program on Climate Change Communication, nearly half of all Americans (46%) report that they have personally experienced the effects of climate change, up from 23% in 2010 and 31% in 2015 (Leiserowitz et al., 2019). Furthermore, Americans directly experiencing hot, dry days influenced the perception that it was caused by climate change, independent of the beliefs, attitudes, and socio-demographic factors that tend to shape climate opinions (Marlon et al., 2021). Thus, the interpretation of climate change as an abstract, uncertain, and merely

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278 Following Bostrom (2013), Ord (2020) defines ‘existential catastrophe’ as “the destruction of humanity’s long-term potential” (p. 37).

279 2020 bore witness to the worst wildfire season in California in modern history, with 9,917 fires burning 4,397,809 acres or 1,779,730 hectares (see: https://en.wikipedia.org/wiki/2020_California_wildfires). Moreover, some of these recent fires in California (e.g., the 2018 Carr fire) exhibited unprecedented behaviour, including 42,000-foot plumes of ash, ‘firenadoes’ whirling at 143 mph (i.e., the force of an EF-3 tornado) with flame vortexes 17,000 feet tall, and 1,500-degree heat (see: www.wired.com/story/west-coast-california-wildfire-infernos/).
‘environmental’ issue that may affect future generations has given way to a palpable sense that the effects of climate change are concrete, immediate, and impactful in literally every aspect of human life (Klein, 2014). In this way, climate change is particularly threatening universal needs of safety and security (Maslow, 1954/1987), tempting many into a multipolar trap of excessive focus on addressing their own needs in terms of basic health, food, and economic security at the expense of tending to the well-being of the collective (Vogel & O’Brien, 2021). That is to say, nobody wants their home or business destroyed or their loved ones lost to hurricanes, wildfires, floods, etc.). With the literal and metaphorical rising tides of climate change, the trajectory seems clear: people will be directly impacted more frequently and intensely until the reality of the metacrisis becomes almost impossible not to grok on some level. This is, however, walking a razor’s edge, as by the time the level of intensity needed to convince enough people of the reality of climate change is reached, things may have progressed too far to avoid civilizational collapse. Hopefully, metatheoretical insight can help to scaffold some degree of systemic foresight and pre-emptive action and we can bring our understanding into resonance with the reality of climate change, thus threading the eye of the needle. The notion that addressing climate change effectively demands a kind of totalizing redesign of our culture and social systems at large (i.e., addressing climate change effectively demands addressing the metacrisis as a whole) is becoming more and more visceral and painfully obvious.

In addition to climate change and other biogeochemical disruptions, we have critically contaminated much of the planet’s water, air, and soil with persistent organic pollutants (POPs) from pesticides, heavy metals, industrial production, etc. (including dioxin and PCBs).
Moreover, we are undergoing a human-driven loss of species known as the Sixth Mass Extinction, unparalleled since the time of the dinosaurs 65 million years ago. Other key (interrelated) concerns include topsoil loss, deforestation, ocean warming, acidification, and plastification, overfishing and the collapse of aquatic ecosystems, loss of coral reef biodiversity hotspots, bioaccumulation of toxins (which threaten primarily mammals at the top of the food chain, namely us humans), endocrine disruption (and increased sterility), depletion of ground water and crucial fossil aquifers, and desertification—and all this while close to eight billion humans (as of 2021) continue to reproduce and consume natural resources at exponentially increasing rates. Additionally, genetic engineering (including technologies such as CRISPR) as well as the development of future technologies, most notably artificial intelligence (particularly nefarious forms of it that are out of alignment with worldcentric human values and ethics) are likewise wildly high-stakes techno-optimist experiments to be considered as possible existential risks to humanity and possibly the biosphere. However, unlike the issues presented above, which are grounded in strong scientific consensus on the dangers they present, these more speculative future risks appear to be ‘wildcards’ that may or not turn out to pose significant existential threats, but almost certainly will radically redefine the contours of the sociosphere—probably in negative if not catastrophic ways—in the decades to come.\(^{280}\) Taken together, due primarily to the stress human activities have induced on the biosphere, we may have arrived at

\(^{280}\) The Oxford scholar Tony Ord (2020) emphasizes the pronounced importance and existential risk posed by “engineered pandemics and unaligned AI,” arguing that they each, along with nuclear war, climate change, and other environmental damage, “pose at least a one in 1,000 risk of destroying humanity’s potential this century” (p. 169). Overall, writes Ord, “the chance of an existential catastrophe striking humanity in the next hundred years is about one in six” (Ord, 2020)
a critical threshold of structural instability—a global (socio)ecological bifurcation point\textsuperscript{281} (Abraham, 1994; Hedlund, 2003; Rutt, 2017; Wallerstein, 2004) and impending phase shift wherein the earth system as a whole “may either break down or break through to one of several new states of order” (Capra, 1996, p. 196). Such breakdowns would likely result in various dystopian trajectories, including various possibilities for existential catastrophe (Ord, 2020), while a breakthrough to an emergent higher-order regime or ‘basin of attraction’ would systemically transcend the crucial contradictions and absences of the antecedent modernist world system, landing us in a new, metamodern\textsuperscript{282} world system.

Moreover, the eco-social crisis has deepened with the COVID-19 pandemic, which as of early-2022 has officially killed over 5 million people worldwide. The pandemic, whether the result of a lab-leak (as the most plausible hypothesis to date would have it), ecological habitat destruction, or other cause, has forced the uncomfortable revelation of just how interdependent and fragile our many social systems and their ecological basis actually are, offering a foreshadowing of the increasingly likely future scenarios vis-à-vis the metacrisis at large. And like the metacrisis as a whole, the COVID-19 pandemic cannot be adequately understood in the old piecemeal mode, in this case as a merely biological or epidemiological public health crisis. Rather, as we have clearly seen, a twenty-first century pandemic is also an

\textsuperscript{281} Such a global ecological bifurcation is necessarily also a socio-ecological bifurcation (see e.g., Hedlund, 2003), given that it is the essential substrate of human civilization, linked through hyper-cyclic feedbacks. It appears that this socio-ecological bifurcation is of a ‘catastrophic’ nature, in contrast to a ‘smooth’ or ‘explosive’ one (Hedlund, 2003; Wallerstein, 2004).

\textsuperscript{282} Metamodern is understood, for the purposes of this thesis, as an emerging geo-historical epoch or period and concomitant cultural sensibility, arising in the wake of (post)modernism. Metamodern, in this sense, overlaps with terms such as post-postmodern, integral, and integrative. For more on the variety of meanings associated with metamodernism, see (Görtz, 2021).
economic, ethical, political, cultural, psychological, spiritual, and epistemic phenomenon, demanding (at a minimum) integration of insight from biology/epidemiology, economics, political science, sociology, psychology, and philosophy. Our planetary socio-ecological systems are all radically interlinked, as a crisis in one system sends cascading feedbacks across all systems. And this insight applies equally to the other aspects of our deepening eco-social crisis.

The Ethical Crisis

Alongside the eco-social crisis, the ethical crisis has come to a head in recent years: income and wealth inequality has been exacerbated by the pandemic, and has risen to historically unprecedented levels. For example, the wealthiest 1% on the planet (those with $1 million USD or more) own 43.4% of the world’s wealth, while 53.6% of the world’s adult population (whose wealth amounts to less than $10,000 USD each) hold a mere 1.4% of the world’s wealth. And the situation is notably worse in some nation states, such as the United States, which exhibits greater disparity between rich and poor than any other major developed nation. And while some positive change has occurred in certain countries, extreme poverty, starvation, and access to certain resources and opportunities remains asymmetrically biased by enduring racism, sexism, homophobia, etc. Furthermore, the dynamics of wealth inequality and corporate power have corrupted the media and politics in many nominal democracies to the point where they

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283 According to Oxfam International, from the beginning of the pandemic around March 18, 2020 to the end of the year, global billionaire wealth increased by an estimated $3.9 trillion USD (see: https://oxfamlibrary.openrepository.com/bitstream/handle/10546/621149/bp-the-inequality-virus-250121-en.pdf). On the other hand, the International Labour Organization reports that the combined earnings of global workers fell by $3.7 trillion, as millions of jobs were lost around the world (see: www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/documents/briefingnote/wcms_767028.pdf).

are teetering on the edge of oligarchy or neo-fascism (as appears to be the case in the United States, especially vis-à-vis former president Donald Trump and his followers), which in turn threatens to increase and solidify these inequalities. Finally, the killing and mistreatment of billions of animals each year through industrial factory farming begets deep moral questions about humanity’s relationship to other species. All this deepening inequality clearly cannot be justified from a normative standpoint and underscores the profound ethical crisis that we humans have ensnared ourselves in.

The Existential Crisis

In addition to the eco-social and ethical crises, we are faced with a deep-seated existential crisis: a widespread and increasing mood of psycho-spiritual exhaustion, overwhelm, alienation, disenchantment, depression, distraction, anomie, addiction, ennui, mental illness, suicide, loneliness, inner emptiness, and gluttony. This underbelly of the hyper-optimistic modern zeitgeist manifests itself in terms of observed decline in mental health, well-being, and life expectancy, and an increase in suicide, drug addiction, mass shootings, and general malaise. This existential crisis is arguably rooted in the sense of absence of deep meaning or overarching metanarratives that confer larger frames of significance and ultimate concern in life. This existential crisis, while pervasive in most Western societies, tends to be somewhat less obvious, as it is a kind of omnipresent background mood of late modernity—like water to the fish. It seems to fester in the subterranean underbelly while we go through the motions of our conventional, 9–5 lifestyles—the hedonic treadmill of alienated labour and nihilistic consumerism—until we hit a breaking point and it bubbles up to the surface.
This can be seen, for example, both literally and symbolically in both the opioid and mass shooting crises in the United States. In 2019 alone, 9.7 million Americans abused prescription pain relievers, while 49,860 died from using opioids, including synthetic opioids such as fentanyl and OxyContin that also generated billions for big pharmaceutical companies such as Purdue Pharma.\textsuperscript{285} Mass shootings have also been on the rise in the US, despite somewhat of a reprieve in 2020 due to the pandemic. In 2019 alone, there were 417 mass shootings in the US.\textsuperscript{286} At the time of writing in 2021, we are well on track for another record-breaking year of these public bloodbaths, which seem to be happening at a numbing frequency. These deadly shootings, while certainly amplified by weak gun-control laws in the US, are arguably symptomatic of a much deeper sense of desperation and existential crisis rooted in a widespread sense of meaninglessness endemic to the disenchanted late modern gaze—the ‘flatland’ worldview that sees the universe as a heap of meaningless matter scurrying about according to cold, mechanical laws described by natural science, devoid of any moral or spiritual order and sense of deeper purpose or intelligence. The manifestations of this existential crisis, such as mass shootings and the opioid crisis, cannot be adequately understood as isolated events, but rather are symptoms of a deeper structural malaise rooted in the absence of big-picture narratives of meaning-making that confer a sense of the sacred—awe, wonder, and human purpose in an ensouled cosmos.

\textsuperscript{286} According to the non-profit organization known as the Gun Violence Archive. See: www.gunviolencearchive.org/
The Epistemic Crisis

In addition to the aforementioned facets of the metacrisis, our times carry the distinct signature of a radically disorienting and unprecedented *epistemic crisis*, wherein the processes by which we ought to generate adequate understanding of the eco-social, ethical, and existential crises and their underlying causes are all but broken: epistemic confusion and a sense of helplessness, radical cultural fragmentation, political polarization, and widespread disagreement—if not all-out cultural warfare—have beset the public sphere, rendering our sensemaking on these complex issues nebulous and opaque. The broadcast media has been largely consolidated and corporatized, while the rise of social media in the 2010s has radically intensified cultural fragmentation, tribalization, extremism, and polarization—pushing the memetic tribal culture wars into physical violence and widespread civil unrest in the West and beyond. And with the migration of popular attention in the early 2010s from centralized broadcast media to social media platforms, such as Facebook and Twitter, our culture shifted the predominant mediums for the discourse of the public sphere and underwent a radical transfiguration. According to the non-profit Centre for Humane Technology, scientific studies have shown that social media (at least in its predominant surveillance-capitalism oriented algorithmic expressions to date) tends to increase cultural and political polarization, extremism, outrage, and fake news, as ‘generating engagement’ from ‘users’ reigns over truth and virtue, bots over people, and profits over privacy, democracy, and the common good. ²⁸⁷ Our media

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²⁸⁷ Social media has also been shown to decrease attention spans and memory, increase addiction, emotional distress, self-image issues, suicide, and developmental delays. Interpersonally, it tends to decrease empathy and increase misunderstanding, while amplifying racism, sexism, and homophobia. For a ledger of these well-documented harms done by social media, see: https://ledger.humanetech.com/. As the centre of economic and political power shifts increasingly from Wall Street to Silicon Valley, so does the onus of responsibility for the cultural and institutional decay that is eroding the foundations of Western civilization and hurling us ever closer to
ecology, which is supposed to be the Fourth Estate in a functional democracy, has become increasingly fragmented and difficult to navigate, leading to a kind of atrophying of the public sphere and the rise of authoritarian movements.

The *epistemic crisis* of information warfare, polarization, disagreement, and gridlock—radically amplified by social media—reached a fever pitch in 2016 with the Brexit vote in the United Kingdom and the election of President Donald J. Trump in the United States, and the increasingly sophisticated mis- and disinformation campaigns (including those involving the Russian Government and Cambridge Analytica) exploiting social media data to manipulate political outcomes.288 A volcano of far-right ethno-nationalist populism erupted from the depths of the national psyches of the United Kingdom, Europe, Russia, the United States, and even parts of Asia and South America (e.g., Brazil), calling into question our institutions of legitimate epistemic authority, from academia to the broadcast media. Many agree that 2016 signalled a radicalization of cultural and information warfare wherein the monopoly on epistemic authority held by the progressive establishment or ‘blue church’289 reached a tipping point and began to unravel (Greenhall, 2017). The identity politics of some far-left movements (e.g., ‘wokism’ or ‘cancel culture’) has likewise tendentially devolved into similarly dogmatic

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289 According to Greenhall (2017), “the Blue Church is a kind of narrative / ideology control structure that is a natural result of mass media. It is an evolved (rather than designed) function that has come over the past half-century to be deeply connected with the Democratic political ‘Establishment’ and lightly connected with the ‘Deep State’ to form an effective political and dominant cultural force in the United States” (p. 2).
and ideological expressions (e.g., militant ‘political correctness’) that, like their far-right counterparts, arguably veer towards authoritarianism and undermine liberal-democratic values such as rationality and the common-sense realism it presupposes, free speech, and principles of universal justice (Pluckrose & Lindsay, 2020a). Information warfare, ‘psyops,’ fake news, so-called ‘deepfakes’ (Schick, 2020), psychographically targeted misinformation campaigns (e.g., that of Cambridge Analytica), hybrid warfare, virtual armies of trolls and bots, attention capture driven by surveillance capitalism AI algorithms (wherein engagement virality trumps epistemic validity), insular echo chambers of outrage-driven social media discourse, ‘flat earthers,’ ‘alternative facts,’ and the widespread appeal of the QAnon conspiracy theory implicated in the January 6 insurrection on the United States capitol announce the arrival of an era of cultural turmoil and epistemic closure that many refer to as the ‘post-truth’ era (see e.g., J. Baldwin, 2018; D’Ancona, 2017; Wilber, 2017b).

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290 For example, the legal institutionalization of gender-neutral pronoun usage [Bill C-16] towards transgendered individuals in Canada. See: www.bbc.com/news/world-us-canada-37875695
291 According to BuzzFeed, the top news story in terms of popularity during the 2016 US election (which alleged that the Pope Francis endorsed Donald Trump for President) was fake. It was read and shared on social media by three times as many Americans as the most popular New York Times article during that period. See www.buzzfeednews.com/article/craigsilverman/viral-fake-election-news-outperformed-real-news-on-facebook
292 Hybrid warfare refers to relatively new, non-linear military and political strategy that integrates political, conventional, irregular, and cyber modes of warfare, including insidious subversive strategies to culturally polarize, divide, and/or control countries, such as fake news and foreign electoral interference. These strategies are intended to avoid conventional mechanisms of international jurisprudence and recourse. See: https://en.wikipedia.org/wiki/Hybrid_warfare
293 The ‘flat earth’ movement is founded on the egregiously fallacious, modern claim that the Earth is flat, rather than spherical. See e.g., www.newsweek.com/flat-earth-science-denial-america-1421936
294 “Alternative facts” was a phrase used by Trump administration staffer Kellyanne Conway during a Meet the Press interview on January 22, 2017. In that interview Conway defended the Trump administration’s statement about the size of the crowd attending Donald Trump’s Presidential inauguration. Such statements are demonstrably false, due to aerial photography and other data. The notion of ‘alternative facts’ has been likened to George Orwell’s ‘doublespeak,’ wherein one is expected to hold two contradictory views as simultaneously true. Such a philosophy bears a striking resemblance, albeit in a rather unsophisticated form, to postmodern social constructivism and the radical constructivism of enactivism and related participatory epistemologies that commit the epistemic fallacy.
Aptly, in 2016 Oxford Dictionaries selected ‘post-truth’ as its word of the year, defining it as “circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief.” As Matthew D’Ancona, author of the book Post Truth (2017) put it,

> As candidate and President, Donald Trump has demeaned the assumption that the leader of the free world should have at least a glancing acquaintance with the truth: according to the Pulitzer Prize winning fact-checking site Politi-Fact, 69 percent of his statements are ‘Mostly False,’ ‘False,’ or ‘Pants on Fire’ (p. 8).

In the United Kingdom, the Brexit campaign to leave the European Union “triumphed with slogans that were demonstrably untrue or misleading—but also demonstrably resonant” (D’Ancona, 2017 p. 8). In a post-truth era of so-called ‘alternative facts,’ public perception or interpretation has become collapsed with reality itself, wherein reality is reduced to perception or interpretation (what Bhaskar calls the epistemic fallacy). A pernicious reading of Nietzsche’s famous dictum that “there are no facts, only interpretations” has infected the public sphere (quoted in D’Ancona, 2017, p. 14). But, as Aldous Huxley (1927) famously put it, and critical realism firmly and rigorously establishes, “facts do not cease to exist because they are ignored.” Indeed, in the words of Philip K. Dick, “reality is that which, when you stop believing in it, doesn’t go away.” But when reality is conflated with perception or interpretation (irrealism), what happens (from a realist vantage point) is an alarming decoupling of prevailing worldviews from truth and reality—a cultural pandemic condition that

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295 See [www.bbc.co.uk/news/uk-37995600](http://www.bbc.co.uk/news/uk-37995600)

296 The strategic exploitation of this conflation of perception and reality (the epistemic fallacy) is at the heart of the Trump phenomenon, as captured clearly by Donald Trump’s daughter, Ivanka Trump (2010): “[p]erception is more important than reality. If someone perceives something to be true, it is more important than if it is in fact true. This doesn’t mean you should be duplicitious or deceitful, but don’t go out of your way to correct a false assumption if it plays to your advantage” (p. 166).

297 This quote is attributed to Philip K. Dick. See [www.goodreads.com/quotes/646-reality-is-that-which-when-you-stop-believing-in-it](http://www.goodreads.com/quotes/646-reality-is-that-which-when-you-stop-believing-in-it)
closely resembles the definition of a (collective) psychosis.\textsuperscript{298} Stein (2018b) drives the point home:

The new post-truth culture is most obviously dangerous when it comes to orienting collective action towards the realities of the physical world. It is simply dangerous to not have a clear sense of the effects of common industrial toxins and food additives, the scope of climate change, or the amount of radiation leaking from the damaged Fukushima nuclear reactor (p. 211).

Indeed, according to Piagetian evolutionary biology, when organisms fail to accurately construe the realities of their physical environment, they enter a perilous ‘disequilibriation’ between worldview and world that can threaten their ability to survive and reproduce.

\textsuperscript{298} According to the US National Institute of Mental Health, “psychosis is used to describe conditions that affect the mind, where there has been some loss of contact with reality.” See www.nimh.nih.gov/health/topics/schizophrenia/raise/what-is-psychosis.shtml. The French postmodern philosophers Gilles Deleuze and Félix Guattari (1977, 1987) similarly claim that late modern capitalist civilization is tendentially moving towards a kind of collective schizophrenia.
APPENDIX TWO—A History of the Critical Realism-Integral Theory Dialogues

In this appendix I present the historical context of the symposium series between critical realism (CR) and integral theory (IT), which provides more details to the general outline provided by Roy Bhaskar (2016b) in his remarks in the Preface of *Metatheory for the Twenty-First Century*. This relatively detailed overview of the encounter between these two schools of thought provides important context for my critique and synthesis of both schools and enhances epistemic reflexivity with respect to the method of hermeneutical dialectics from which the core philosophical aspects of this thesis were derived. Secondarily, I also feel that a more detailed historical overview can offer value by potentially informing other similar initiatives of dialogue across theoretical and metatheoretical schools of thought, thus providing a model for fruitful engagement.

In June 2010 a number of the world’s leading integrative metatheorists and philosophers converged, for the first time, at the University of Luxembourg for the international symposium “Research Across Boundaries—Advances in Theory-Building,” organized by Markus Molz and the German-based Institute for Integral Studies to engage an unprecedented meeting of scholars from more than 15 countries across all continents. Among those scholars were Roy Bhaskar, Mervyn Hartwig, Sean Esbjörn-Hargens, and myself. Through the course of the event all four of us had the opportunity to connect both in and out of sessions and immediately struck up lively friendships. During our conversations we discovered our mutual love for and interest in integrative meta-approaches to reality, and with growing excitement began to explore the
resonances between critical realism and integral theory and how they can learn from each other. Roy, Sean, and I stayed in touch afterwards and soon began to envision and organize a symposium in the San Francisco Bay Area in 2011. From then on, all four of us maintained contact and continued to explore the rich interface between the two metatheories. What emerged from the 2011 symposium led to the envisaging of a series of symposia that together spanned over four years of deep dialogical engagement between the two communities of scholar-practitioners. In addition to Luxembourg, the symposia were as follows: 1) John F. Kennedy University, San Francisco Bay Area, 2011; 2) Integral Theory Conference, San Francisco, 2013; 3) Critical Realism Conference, UCL Institute of Education, 2014; 4) Integral Theory Conference, Sonoma State University, 2015.

Most notably, the anthology *Metatheory for the Twenty-First Century: Critical Realism and Integral Theory in Dialogue* (Bhaskar et al., 2016)—and its sister volumes *Big-Picture Perspectives on Planetary Flourishing: Metatheory for the Anthropocene, Volume I* and *Integrative Responses to the Global Metacrisis: Metatheory for the Anthropocene, Volume II* (Hedlund & Esbjörn-Hargens, 2022a, 2022b)—were among the fruitful results of this five year period of formal dialogical engagement between critical realists and integral theorists. The books, in many ways, can be seen as the result of systematic exploration and inquiry into the relationship of two of the planet’s most comprehensive integrative metatheories and how each were—and continue to be—impacted and transformed through such an encounter. Of particular relevance for this thesis, we bore witness to the ‘mutant hybrid offspring’ that emerged through their cross-pollination, and some of the possibilities for how they can
mutually empower each other with respect to real-world engagement vis-à-vis the complex global challenges that constitute the metacrisis. Indeed, my contributions to the books (e.g., Hedlund, 2016a) represent early iterations of what later would become my foundational synthesis of the two schools in a visionary realism. Thus, the *Metatheory* volumes (Bhaskar et al., 2016; Hedlund & Esbjörn-Hargens, 2022a, 2022b) can be seen as part of an integrative methodology of dialogical engagement and cross-pollination of two schools of metatheoretical thought in the context of five symposia over the course of five years that seeded the emergence of visionary realism, as well as the distinct approaches to integral realism of Esbjörn-Hargens (2016), and Marshall (2016a; 2016b), and Stein (2022).

Having articulated the Critical Realism & Integral Theory Symposia series and resulting books as key historical context for emergence of visionary realism, I will now briefly offer a typology of metatheory encounters that emerged out of the multi-year dialogue on the way to situating the contribution of this thesis within this context.

**A Typology of Metatheory Encounters**

In the Preface to *Metatheory for the Twenty-First Century*, Roy Bhaskar (2016b) outlined five positions in the engagement between critical realism and integral theory. The Preface is based on the transcript of Bhaskar’s opening remarks at the fourth symposium at UCL in London. In this section I review the positions Roy outlines and develop this framework further. I do so for several reasons. First, I argue that these six positions can be generalized to possible positions for any (meta)theoretical encounter between different approaches and are therefore useful for different metatheoretical or scholarly communities to consider when encountering each other.
The order of the typology presents a spectrum of possible positions that can be inhabited; while many variations on them are possible, these seem to be the main types. Second, these positions summarize the various positions taken in the dialogues and the *Metathecy* book, and therefore help to contextualize the position I argue for in the context of visionary realism. As such, I feel that it is useful to invoke this typology as a way of understanding and contextualizing the various possibilities for the hermeneutical encounter between the two metatheories.

These positions are as follows: 1) Complex Integral Realism (CIR), exemplified by Sean Esbjörn-Hargens (2016) in Chapter 3, and characterized by ‘preservative synthesis’; 2) The Possibility of Complex Integral Realism (P(CIR)), exemplified by Paul Marshall (2016a) in Chapter 4, and characterized by ‘potential synthesis’; 3) Critical Realist Integral Theory (CRIT) exemplified by my own work (Hedlund, 2016a, 2019) that would later evolve into visionary realism, characterized by ‘non-preservative synthesis,’ an approach that Bhaskar (2016b) himself was “very sympathetic to” (p. xxvi); 4) Critical Realism/Integral Theory Resonance (CR/IT), exemplified by Mervyn Hartwig (2016) in Chapter 7, and characterized by ‘resonance, but no synthesis possible’; 5) Critical Realism and Integral Theory Incommensurability (CR||IT), exemplified by Timothy Rutzou (2012, 2014) in his *Journal of Critical Realism* articles, and characterized by ‘no fruitful dialogue; incommensurable.’

In the dialogue following Bhaskar’s remarks, Mark Edwards introduced a sixth position that seems useful to specify.

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300 It is worth noting that the Frankfurt school philosopher and psychologist Otto Laske weighs in that there is at least one additional position: one that would “begin with dialectical thinking itself and spin out of it a synthesis that may well take pieces from here and there, but unencumbered by these” (quoted in Roy Bhaskar, 2016b, p. xxvi). This is not included here as a ‘position,’ because, in my view, it is more of a method than a position in the proper sense.
In addition to the five positions Bhaskar outlined in the Preface, the additional position inspired by Mark Edwards’ comments has been included. In his exchange with Bhaskar, Edwards makes the point that there is also a position that is focused on the context or “clearing” of the metatheory engagement, as opposed to the specific content or metatheories being engaged. Since this position signifies the conditions or context for any encounter between integral metatheories to occur it has been placed prior to the other five positions and a zero has been used to designate it. Using a “0” in this way both preserves the order of Roy’s typology and serves to signify the clearing that this position is highlighting. This position can also be signified with a keyboard by “|_____|” to represent the context in which metatheories, in this case.
critical realism and integral theory, are engaged with each other. In sum, these six positions (see Figure 12) essentially move from a general clearing of engagement (position 0) to decreasing degrees of compatibility or integration (positions 1–4) to incommensurability and non-dialogue (position 5). Moreover, it is worth noting that Roger Walsh (2016) provides a resonant typology of five major possibilities that arise in response to the meeting of metatheories (pp. xviii-xix). These likewise are oriented along a continuum of commensurability and integration and have a rough correspondence to some of the positions outlined yet add unique nuance and inflections. It is important to note that some contributions contain arguments associated with more than one position. Thus, these six positions should not be reified. Rather they serve as general types of distinct orientations that can occur across a spectrum of possibilities.

It is noteworthy that in the course of the four symposia, articles and chapters were generated that illustrate all six positions. These correspondences are noted, along with summaries of each chapter, below.

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Walsh’s five responses (pp. xvii-xix of his foreword) are as follows (with the rough correspondences to our positions noted parenthetically):

- “Defensive dismissal of the validity and value of alternate theories” (position 5)
- “Mutual enrichment, which will hopefully always occur” (position 4)
- “The identification of common factors: What ideas, dimensions, levels and epistemologies do the theories hold in common?” (position 4)
- “Assimilative integration: In this response, elements of one theory are assimilated into another theory. This is something that metatheories do routinely, and thereby enrich and enlarge themselves” (position 4)
- “The formation of a novel integrative theory that effectively synthesizes and integrates the elements of the original constitutive theories” (positions 3 and 1)

Interestingly, as I mentioned, when Sean Esbjörn-Hargens, Roy Bhaskar, Mervyn Hartwig, and I first began to order the table of contents for the first Metatheory volume (Bhaskar et al., 2016) we intuitively organized the chapters in an order that reflected the sequence of these six positions. Since the Metatheory volume was about
Metatheory for the Twenty-First Century: Book Chapters and Their Positions

The first two chapters of the *Metatheory* volume represent in various ways position 0. Zachary Stein’s (2016a) “Beyond nature and humanity: Reflections on the emergence and purposes of metatheories.” In this chapter, Stein takes a metaview on metatheories. Adopting an “expressive” style rather than a “persuasive” one, he explores the notion of “metatheory” and provides an historical reconstruction drawing on some key figures (e.g., Peirce, Baldwin, Piaget, and Habermas) that contribute to contemporary understandings of the practice and philosophy of metatheory. He discusses the normative nature and function of metatheories, with a focus on their evolutionary and developmental framings. Stein ends with linking his reflections to the metatheory projects of Wilber and Bhaskar. This chapter helps to ground the advancement of metatheory in the historical and philosophical contexts that have set the stage for the dialogical encounter between critical realism and integral theory. Stein invites us to simultaneously look backward and forward as to the purpose and normative function of integrative metatheories.

Building on the theme of reflecting on and delineating the clearing of integrative metatheorizing, the next chapter is Mark G. Edwards’ (2016) “Healing the Half-World: The Emancipatory Potential of Meta-Level Social Science.” Edwards is well known for his ground-breaking work in articulating the architecture of an integral meta-studies. In this chapter he furthers his project by exploring the healing and emancipatory potential of a meta-level social dialogue between two or three integral metatheories it was decided not to include a chapter representing position 5—no fruitful dialogue—evenhough interested individuals can read Timothy Rutzou’s (2012, 2014) articles in *Journal of Critical Realism* which clearly make some important points on the subject, particularly with regard to integral theory’s commitment of the actualist fallacy.
science. To do this he examines Bhaskar’s triadic lens “Absolute-Relative-Demi-reality” and its meta-ontological implications for reflexive social science. To deepen this enquiry, he juxtaposes Bhaskar’s lens with Wilber’s meta-hermeneutic engagement with the Absolute-Relative lens. Edwards’ leverages both Bhaskar and Wilber’s approaches to illustrate how an emancipatory social science could be developed. In doing this, Edwards not only illustrates the process of engaging multiple integrative metatheories to support emancipatory aims, but he demonstrates the value of drawing on both critical realism and integral theory for such a project. In other words, Edwards illuminates the process of creating a meta-context by engaging specific metatheories.

Next we have Sean Esbjörn-Hargens’ (2016) “Developing a Complex Integral Realism for Global Response: Three Meta-Frameworks for Knowledge Integration and Coordinated Action.” This is an ambitious chapter that can be viewed as a representative of position 1, though Esbjörn-Hargens’ intent is more about developing a “meta-praxis” of creating an integral metatheory. To illustrate this he places critical realism, integral theory, and complex thought into a “trialectical” encounter that serves to address the blind-spots of each approach. Drawing on the key strengths of each integral metatheory, Esbjörn-Hargens develops three meta-frameworks (one for each of the domains of epistemology, methodology, and ontology) to support this meta-praxis. This chapter provides a powerful example of what a preservative synthesis between the three integral metatheories might consist of and as such paves the way for further development of such a complex integral realism.
Complementing the previous chapter, Paul Marshall’s (2016a) “Towards a Complex, Integral Realism” serves to provide a detailed analysis of the key concepts and frameworks of all three integral metatheories (critical realism, integral theory, and complex thought) and their resulting common ground. Marshall does an excellent job of discussing the areas of cross-fertilization between these three metatheories. In contrast to Esbjörn-Hargens’ chapter which uses the three integral metatheories to go “meta-meta,” Marshall uses them to go “meta-micro” and provide a detailed overview of the similarities and differences between all three. He concludes his chapter by identifying some of the key features of a “complex, integral realism.” This chapter serves as an illustration of position 2 and the possibility of a synthesis between these three integrative metatheories.

In my own chapter (Hedlund, 2016a) “Rethinking the Intellectual Resources for Addressing Complex 21st Century Challenges: Towards a Critical Realist Integral Theory,” I begin the work of creating a provisional non-preservative synthesis between critical realism and integral theory. At the time of publication, I called the result a CRIT—a critical realist integral theory—and this represents position 3, which is characterized by a non-preservative synthesis (i.e., some elements from each theory are negated in order to create the synthesis). To do this, I examine in detail the epistemological and ontological positions of each metatheory. I then critique each metatheory in light of the other theory. This systematic analysis helps to lay the groundwork for considering what a position 3 CRIT might consist of. This chapter details the philosophical challenges each metatheory poses to the other and how they might be reconciled into a new vision.
In a similar, but less systematic and synthetic, spirit to my own contribution, Michael Schwartz (2016) explores the complementary and divergent natures of critical realism and integral theory. In his chapter, “After Integral Gets Real: On Meta-Critical Chiasma of CR and IT” he identifies several points of contact between both metatheories and how each can be enhanced by distinctions and perspectives from the other. Schwartz begins with the polarized domain of being and knowing. It is polarized in the sense that this is where the most obvious clashes of perspectives occur between the two traditions. Next, he explores the important role that negativity and nothingness plays in both metatheories. This sets the stage for him to explore the role of schemes: CR’s stratified ontology of horizontal depth and IT’s stratified ontology of vertical height. He concludes with a discussion of non-duality, a view that both schools include as important and foundational to their approaches. While in some respects Schwartz’s chapter appears to be oriented to process as much as position, this chapter represents a view that falls between positions 3 and 4.

Striking a more first-person reflective tone, Mervyn Hartwig’s (2016) “Why I’m a Critical Realist” represents position 4. Hartwig holds that there are important resonances between critical realism and integral theory and that each can benefit from an encounter with the other. However, he argues that there are fundamental incommensurable aspects that render any real synthesis (preservative or otherwise) impossible. This chapter in effect has two streams of discourse occurring simultaneously. On the one hand there is the narrative of Hartwig’s philosophical journey with critical realism and an argument that the poly-crisis can be resolved
only by an epochal transition to a global society based on solidarity and love, as thematized by critical realism. On the other hand, there are his robust endnotes, which provide a context for him to unpack some salient points about the limits of integral theory and its incommensurability with critical realism. This structure serves to highlight how the practice of philosophy is wonderfully always inter alia a very personal and biographical process.

The final chapter in the volume is Tom Murray’s (2016) “Contributions of Embodied Realism to Ontological Questions in Critical Realism and Integral Theory.” This chapter takes a different approach than previous chapters in that it is less concerned with the relationship or possible synthesis between critical realism and integral theory. Instead, Murray draws on the field of embodied philosophy (à la Lakoff and Johnson’s position of embodied realism) to augment both CR and IT. He introduces a number of the core distinctions and findings of embodied realism and illustrates how these notions can ground integrative metatheories like CR and IT. He focuses on epistemological and ontological issues, which is quite useful given that it is within these contexts that most of the philosophical challenges and opportunities exist between these two approaches. In some respects, this final chapter represents position 0 in that it foregrounds the process of integrative metatheorizing and helps establish the clearing of such metathinking and meta-practice. It highlights how the dialogue that has occurred to date, and is in part represented by the chapters in the volume, can be further developed, expanded, and deepened by drawing on other philosophical traditions beyond the sphere of integrative metatheories as such. Besides, given the abstract nature of integrative metatheories, this chapter is useful in anchoring them in our embodied experience, making us more aware of the epistemic drives
and multiple metaphors we can use to navigate, in fruitful ways, the many lines of inquiry that the encounter between integrative metatheories opens up.

Together these eight chapters serve to illustrate a wide range of potential positions of relationship between critical realism and integral theory (and in some cases complex thought as well). In addition, various other bodies of work and philosophical traditions are drawn on to support the inquiry around the possible relationships that can be supported between these integrative metatheories. The contributors argue for and against various degrees of synthesis, augmentation, and complementarity as well as make a case for incommensurability and outright disagreement. On the whole they do a formidable job of documenting the range of philosophical issues that have been present in the series of symposiums while highlighting the value of bringing two different groups of scholar-practitioners together for dialogue and engagement.

The Afterword was written by Markus Molz (2016), who, as noted above, is largely responsible for planting the seeds—at the Luxembourg symposium in 2010—for what grew into this five-year dialogue between leading scholar-practitioners of critical realism and integral theory (as well as other notable positions). Molz’s Afterword helps situate the generative encounter documented in this volume within an even larger inquiry around the importance of creating interspaces of engagement between different streams of integrative and even non-integrative metatheories. Molz’s reflections, which also resonate closely with position 1, inspire us to use what has transpired between the communities of critical realism and integral theory as a way of
exploring and modelling the transformative and emancipatory potential of bringing different metatheories into intimate contact with each other.

Finally, in reflecting on the CR-IT dialogues at large, I feel that it is worth noting that this kind of in-depth engagement between two metatheoretical (or even theoretical) approaches appears to be quite rare. All too often academics can entrench their identities within a particular theoretical stream or approach, building a career and reputation around such deep-seated egoistic and emotional identities. Such unfortunate dynamics tend to undermine the Habermasian notion of an “ideal speech situation” in which a free and open truth-centred discourse predominates and the ‘unforced force’ of the rationally better argument ‘wins’ the day. In a more personal instantiation of Kuhnian paradigm dynamics, potentially better arguments that reveal contradictions or absences from a given theoretical approach are discounted as anomalous and largely ignored, rather than rationally engaged, as the implications of such engagement may be dystonic to the particularity of an academic’s theoretical or professional identification. Such dynamics, I would argue, are among the many reasons why much of the academy has lost touch with addressing reality and the metacrisis in any meaningful sense. So many seem to be content to ‘re-arrange the deck chairs on the Titanic,’ as it were. In contrast, the five-year engagement between integral theorists and critical realists could be seen as an exemplar of fruitful theoretical exchange. Most of the academics from both metatheoretical schools, myself included, were transformed and enriched to some extent by the encounter. Only the most orthodox, hard-line adherents to their metatheoretical school, falling into position 5/incommensurability, did not appear to have undergone a
significant transformational process in terms of their positions being impacted in important ways.

The anthology *Metatheory for the Twenty-First Century: Critical Realism and Integral Theory in Dialogue*—and its sister volume *Metatheory for the Anthropocene: Emancipatory Praxis for Planetary Flourishing*—are among the fruitful results of over five years of deep dialogical engagement between these two communities of scholar-practitioners. These books, in many ways, can be seen as the result of a systematic, iterative exploration and inquiry into the relationship of two of the planet’s most comprehensive integrative metatheories and how each were—and continue to be—impacted and transformed through such an encounter. Notably, we bore witness to the ‘mutant hybrid offspring’ that were born through their cross-pollination, and how they might mutually empower each other with respect to real-world engagement vis-à-vis the complex global challenges that constitute the metacrisis. Thus, these dialogues and the consequent *Metatheory* volumes (Bhaskar et al., 2016) can be seen as an integrative methodology of dialogical engagement and cross-pollination of two schools of metatheoretical thought in the context of five symposia over the course of five years. I will now describe highlights from each of the symposia in turn.

**A Meeting of Minds: University of Luxembourg, June 2010**

In June 2010 a number of the world’s leading integrative metatheorists and philosophers converged, for the first time, at the University of Luxembourg for the international symposium “Research Across Boundaries,” organized by Markus Molz and the German-based Institute for
Integral Studies, to engage an historic meeting of minds and hearts. Among those scholars were the four editors of these two volumes: Roy Bhaskar, Sean Esbjörn-Hargens, myself, and Mervyn Hartwig. At this academic gathering Roy and Sean were both in the same section devoted to “Integrative Frameworks Crossing Multiple Boundaries.” During the event all the editors made a connection. Roy, Sean, and I stayed in touch afterwards and soon began to envision and organize a symposium in the San Francisco Bay Area. From then on, all four maintained contact and continued to explore the rich interface between the two metatheories.

Symposium 1: John F. Kennedy University, San Francisco Bay Area, September 2011

In the fall of 2011, the Integral Research Center and Integral Institute, in partnership with the International Centre for Critical Realism, hosted the inaugural Critical Realism & Integral Theory Symposium at John F. Kennedy University in the San Francisco Bay Area. This four-day event was planned by Roy, Sean, and Nick to bring together established scholars from both approaches to explore the points of similarity and divergence. The goal was to create a generative space of inquiry and dialogue, edgy in its capacity to be critical of each approach, while at the same time being constructive. In order to encourage a level of intimacy and depth among participants, only 15 people were invited from each approach. Integral theory participants included:

- Sean Esbjörn-Hargens, USA
- Clint Fuhs, USA
- Nick Hedlund, USA/The Netherlands
- Jordan Luftig, USA
- Michael Schwartz, USA
- Robb Smith, USA
- Zak Stein, USA
- Roger Walsh, USA
- Lisa Waters, USA
Critical realist participants included:

- Eirin Annamo, Norway
- Roy Bhaskar, UK
- Hans Despain, USA
- MinGyu Seo, South Korea
- Mervyn Hartwig, UK
- Neil Hockey, Australia
- Paul Marshall, Spain/UK
- Leigh Price, UK/South Africa
- Tim Rutzou, UK/Australia
- Nick Wilson, UK

In addition to these two major groups there was a third group of metatheorists who were not identified with either CR or IT but familiar with both. They were invited to offer a reflective engagement outside of identification with either approach, help each approach see its blind spots, and provide an overarching view of integrative metatheory. These participants included:

- Gary Hampson, Czech Republic/UK
- Bonnie Roy, USA
- Lauren Tenney, USA

Additionally, there were a number of participants who attended parts of the event, including:

- Annick de Witt, The Netherlands/USA
- Ray Greenleaf, USA
- Sushant Shresta, USA/Nepal
- Vernice Solimar, USA

Over the course of our four days together, we had the opportunity to get to know each other in some depth. During our long formal sessions in dialogue, each ‘side’ had the opportunity to introduce itself philosophically. It was a very exciting time in which we were learning each other’s theoretical languages, and identifying many striking similarities, complementarities, and broad resonances. While we were also beginning to note some key differences and potential areas of incommensurability, this was not a strong focus, and we did not go into these in depth. The predominant note was a vital sense of optimism as we oriented ourselves to the
possibilities for collaboration and integration. We were in a kind of ‘honeymoon’ phase in which a mood of warmth and generosity prevailed, and there was a strong sense among some, if not many, that the deficiencies of each approach synchronistically seemed to correspond with the strengths of the other, such that two metatheories might fit together in an almost yin-yang sense of complementarity, or like two pieces of a puzzle. In line with this enamoured mood, Esbjörn-Hargens (2011) wrote the following passage reflecting on his experience at the symposium:

It was a very engaging four days and I think it is fair to say that both meta-approaches will never be the same. The similarities between the meta-philosophy of Bhaskar and the metatheory of Wilber are simply stunning. Furthermore, the ways they complement each other via their unique combination of strengths and limitations is remarkable. For example, Integral Theory excels at articulating a sophisticated and nuanced theory of epistemology whereas Critical Realism is unsurpassed in presenting a multi-layered and complex theory of ontology. Integral Theory has a primary focus on individuals and their growth and development all the way till nondual realization. Critical Realism has a primary focus on society and the injustices therein which must be addressed for collective emancipation.

The main area of divergence that emerged occurred around Integral Theory’s post-metaphysical notion of enactment and Critical Realism’s critique of neo-Kantianism and their notion of the Real. While the complexities of the exchanges around this are too multifaceted to get into here, I will just say that I felt more alive in those moments than I ever have before. It was just thrilling to be at the intersection between Critical Realism and Integral Theory and watching both approaches having to confront some deep epistemological and ontological issues; issues that likely will have a major impact on both schools of thought as they continue to unpack the implications of what the other school was pointing out to them.

In short, there were a number of deep exchanges between the two groups. Integral Theory has a lot to learn from Critical Realism and vice versa. The Critical Realists raised some good critiques and identified areas of underdevelopment within Integral Theory and we did the same for them. I feel that Integral Theory has found a soul mate in Critical Realism (and Bhaskar’s philosophy of metaReality). I learned as much about Integral Theory over these last four days as I did about Critical Realism. Thus, this four-day encounter served both schools of thought in helping each one to make their own approach an object of their collective awareness. Therein lies the subject to object principle, which is the driver of growth and transformation. I honestly feel that Integral Theory will never be the same now—it has and will continue to be transformed by its encounter with the Critical Realism “other.” In fact, there are already a variety of ongoing exchanges, collaborations, and engagements between the members of the symposium from both communities of discourse. For Integral Theory to mature into its post-formal potential as a meta-framework for theory and practices, ongoing events such as this will be essential and I believe are now inevitable (p. v).

Some of the most notable creative outcomes of this first symposium include:
A number of academic articles in both *Journal of Critical Realism* and the *Journal of Integral Theory and Practice* were published that extended and deepened the engagement.

- **Journal of Critical Realism** published three articles inspired by the symposium. These are Paul Marshall’s “The Meeting of Two Integrative Metatheories,” Timothy Rutzou’s “Integral Theory: A Poisoned Chalice?” and Hans Despain’s “Integral Theory: The Salubrious Chalice?”
  - Marshall’s article offers a fine overview of the points of connection and divergence between critical realism and integral theory and a constructive vision of how the two approaches might interact in mutually enhancing ways.
  - Rutzou’s article essays a philosophical critique of integral theory from a critical realist perspective.
  - Despain’s article analyzes the potential theoretical benefits offered by integral theory. While endorsing some of Rutzou’s points, it argues that integral theory offers much to critical realism in the form of developmental theories, cultural anthropology and transpersonal psychology.

  - Marshall’s first article discusses how integral theory might benefit from critical realism by providing an in-depth overview of critical realism’s foundational transcendental realist ontology, including a review of relevant background philosophies informing it.
  - Marshall’s second article was written as a summary for Roy Bhaskar of Ken Wilber’s position on critical realism. The article was based on an exchange between Marshall and Wilber as a part of the journal review process.
  - Bhaskar’s article is a response to Marshall’s summary, which was hoped to have initiated a more direct conversation between Bhaskar and Wilber.
  - Wilber’s article was written as a long endnote for his supposedly forthcoming book, Volume 2 of the Kosmos Trilogy, prior to his ‘exchanges’ with Marshall and Bhaskar, and originally posted on the Integral Life website: www.integrallife.com.

A strategic partnership was established between the International Centre for Critical Realism at the UCL Institute of Education, University of London and the San Francisco-based MetaIntegral Foundation in general, as well as with the Integral Research Center in particular. This partnership became the institutional underpinning for the CR-IT symposium series, as well as for the *Metatheory for the Twenty First Century* volume.

A post-conference workshop on metaReality following the 2012 International Association of Critical Realism Conference, “Global Challenges & Critical Realism Debates,” at Rhodes University in South Africa, was partly dedicated to constructively exploring the relationship between critical realism and integral theory.

A group of American participants from New England, including Hans Despain, Zak Stein, Lauren Tenney, and Bonnie Roy formed an ongoing dialogue group.

Paul Marshall’s PhD thesis project evolved into an exploration of the interface of critical realism, integral theory, and Edgar Morin’s complex thought—a shift that was importantly inspired by the symposium. Paul continued to engage in mutually provocative dialogues in this area with Roy, whom he studied under at the UCL Institute of Education.

In the wake of the symposium, I began to collaborate with and be mentored by Roy Bhaskar. Roy eventually invited me to study under him at UCL. Through the symposium and subsequent deep dialogues with Roy, I underwent an intellectual revolution, moving from a primary identification with the philosophy of enactivism to a modified critical realist position. The mature trajectory of this revolution is expounded in this thesis, particularly Chapters 3 and 4.
In the summer of 2012, Roy, Sean, and I consolidated a vision for the *Metatheory* volumes, wrote a proposal, and landed a contract with Routledge. We began to invite contributors to submit précis, from which the submissions were selected for publication in the book.

Sean Esbjörn-Hargens, in collaboration with Mark Forman and Jordan Luftig, began to envision the 2013 Integral Theory Conference in San Francisco. The conference was deeply inspired by the kind of dialogical engagement of bringing these metatheories together exemplified in the symposium. The conference sought to bring into dialogue three key integral metatheories—integral theory, critical realism, and complex thought—and thus redefine the field, no longer in terms of Wilberian integral theory exclusively, but rather in terms of the dynamic confluence of these three metatheories.

**Symposium 2: Integral Theory Conference, San Francisco, July 2013**

The second symposium was held as a pre-conference event of the Integral Theory Conference (ITC) in San Francisco in July of 2013. This daylong international symposium, “Metatheory for the 21st Century: Critical Realism & Integral Theory in Dialogue,” was held for invited critical realists and integral theorists to converge once again and advance the dialogue. As noted above, a major theme of the third Integral Theory Conference, “Connecting the Integral Kosmopolitan,” was exploration of the relationship(s) between integral theory and critical realism, as well as that of complex thought. Roy Bhaskar delivered a keynote address, along with the French philosopher and founder of complex thought, Edgar Morin. The conference marked Roy’s introduction to the integral community at large, which Roy was rather delighted by. Many felt that the integral community almost as one mirrored back to Roy the deep value of his ‘spiritual turn’ and subsequent vision of metaReality, whereas in the critical realist community it has been much more controversial. In the integral community, Roy’s work, in all three of its major phases, was received in a wider context, which was important for Roy. Roy and Edgar Morin also met and conversed with each other. This constituted an historic confluence of their respective metatheoretical streams. Moreover, several prominent critical realists attended and presented; numerous presentations at the conference were devoted to
exploring points of contact between these two metatheories; and two new award categories for conference papers, “best engagement with critical realism” and “best engagement with complex thought,” were included by the conference organizers. Thus, the second symposium, though it remained predominantly focused on the meeting of just two of these metatheories, was a kind of microcosm of the macrocosm of the conference—and in many ways, the whole conference was inspired by the kind of engagement demonstrated at the first symposium at JFK University, nearly two years earlier.

While we very much built on the generative dialogical encounter that we began at the first symposium, the focus of the second was beginning to turn from a more (meta)theoretical approach to the realm of praxis and application in a contemporary planetary context. Thus, the one-day San Francisco symposium focused on the ways in which these two (and other) integrative metatheories can join forces to transform scholarship and address the most pressing global challenges of the twenty-first century—from climate change to the global economic crisis to the need for new forms of education. Over the course of the event, we sought to create a space of free-flowing exchange and nurture a rich field of mutual understanding that would continue to inspire future engagement and development within and between both approaches.

This symposium also saw the beginning of collective work on the Metatheory book (which grew into two volumes). Accepted précis along with several chapter drafts for the book were sent to participants prior to the symposium, providing an opportunity for reflection on the themes and
theses presented therein, and were used as a starting point for our engagement. We wanted, once again, to create a generative space of inquiry and dialogue that was critical, but this time the focus was more oriented to real-world solutions. More specifically, dialogue focused on the ways both metatheories (and various interfaces and syntheses) could be employed in creative ways that illuminate reality and pathways toward holistic social-cultural transformation in the face of contemporary ‘wicked problems.’ This, we felt, was the optimal focal point for our dialogue, as opposed to focusing primarily on the debate around how each theory ‘maps onto’—or fails to map onto—one another.

Many of the same scholars participated in this symposium, though some important critical realist voices were missing, and there were also some new faces. We again invited some metatheorists who were familiar with both (and other) approaches to provide some triangulation and contextual engagement from an ‘external’ vantage point. Naturally, with the symposium being a part of the Integral Theory Conference, there were more integral theorists and fewer critical realists this time around. Integral theorists included:

- Bruce Alderman, USA
- Annick de Witt, The Netherlands/USA
- Sean Esbjörn-Hargens, USA
- Clint Fuhs, USA
- Nick Hedlund, USA/The Netherlands
- Gilles Herrada, USA/France
- Ed Kelly, Ireland
- Lynette Lee, USA
- Jordan Luftig, USA
- Tom Murray, USA
- Aftab Omer, USA
- Matthew Rich, The Netherlands/South Africa
- Michael Schwartz, USA
- Zak Stein, USA

Critical realists included:
The San Francisco symposium not only deepened the engagement and alliance between CR and IT, but also brought to light the potential for engagement with Morin’s complex thought (and also other approaches, such as speculative realism or actor-network theory). There was also a sense of excitement about Roy’s keynote address and critical realism being formally introduced to the integral community, as well as that of complex thought. In addition to the group dialogue in the symposium, fellow UCL doctoral researcher and student of Roy Bhaskar, Paul Marshall, gave a short presentation that offered an overview of each of the three metatheories—arguing that there is an important dialogue, complementarity, and potential integrative synthesis in bringing the three metatheories together. It seemed that nearly everyone was impressed and inspired by this vision that Paul had articulated with such clarity, sophistication, and eloquence. In this way, the horizon of our engagement seemed to widen.

Beyond this bright and buoyant sense of possibility, during this symposium (and the time in between the two), we were starting to substantively metabolize and comprehend each other’s positions, having done more background reading and research, and as a result come to understand more fully some of the key differences in our respective metatheories, for example
CR’s critique of the *epistemic fallacy* and *actualism* and the ways in which they arguably play out in the context of IT, as well as IT’s critique, in various inflections, of what would later be named by Zak Stein (2022) as the *cognitive maturity fallacy*, and the case that CR succumbs to it. However, this greater appreciation for the differences was generally backgrounded, and the sense of solidarity and broad agreement foregrounded. There was likely more dissent in the community than many of us realized at this symposium, but the focus on and shared commitment to real-world emancipation seemed to captivate our attention and—for the moment—overshadow our differences. Moreover, at that point, we had only read each other’s précis and a few draft chapters—but, as we would learn, the ‘devil of disagreement’ often lies in the details, which were largely yet to be thoroughly expounded in the chapters.

Noteworthy outcomes that emerged between the second and third symposia include the following:

- Many individuals in the integral community began referencing critical realism in their work—so the integral community has had major uptake in citation of CR material.
- An estimated 30–40% of integral scholars who presented papers at ITC 2013—and a disproportionate 50–60% of the prominent leadership in the integral community—have engaged with critical realism. Such engagement has been highly generative and will likely have lasting impacts on the field.
- The 2013 International Association for Critical Realism (IACR) conference in Nottingham, UK, featured another post-conference day devoted to meta-Reality, including its relationship to integral theory.
- Initially conceived as a single anthology, in the spring of 2014 the burgeoning length of the book provoked us to propose that the original book be split into two standalone books: the present one, and its aforementioned companion volumes *Big-Picture Perspectives on Planetary Flourishing: Metatheory for the Anthropocene, Volume I* and *Integrative Responses to the Global Metacrisis: Metatheory for the Anthropocene, Volume II* (Hedlund & Esbjörn-Hargens, 2022a, 2022b). While the first book takes up a more theoretical focus, the *Metatheory for the Anthropocene* volumes are concerned with questions of a more applied, praxis-oriented nature.
- At the 2014 European Integral Conference in Budapest, Ken Wilber delivered a keynote address and engaged in a subsequent question-and-answer style dialogue (over Skype). In the question-and-answer period Wilber was asked what he was working on recently, and, according to Frank Visser, among the
topics he mentioned was what he viewed as ‘serious problems’ in the philosophy of critical realism, which could possibly result in a new, Wilber-6 phase of his work.

- Gary Hawke, a British scholar-practitioner of integral theory and critical realism, produced an online audio and video series of interviews with Roy Bhaskar, “Introduction to Critical Realism,” in an effort to make critical realism more accessible. These materials are available on YouTube. Also see Gary Hawke’s website at: www.alethic-coaching.org/

- In the spring of 2014, Roy proposed that Mervyn Hartwig join the editorial team to assist with the burgeoning workload. Sean and Nick agreed, and Mervyn came on board.

**Symposium 3: Critical Realism Conference, UCL Institute of Education, July 2014**

The third symposium, “Integrative Metatheories in the 21st Century: Forging New Alliances for Planetary Flourishing in the Anthropocene,” was held at the UCL Institute of Education, as a post-conference event following the 17th annual International Association for Critical Realism (IACR) Conference “From the Anatomy of the Global Crisis to the Ontology of Human Flourishing.” In some respects, the conference took up the dialogical spirit of the second symposium (ITC 2013), albeit to a much lesser degree, and built on it. Several integral theorists presented at the IACR conference, and some noteworthy dialogues ensued.

This one-day symposium was again intended to help forge new alliances across theoretical boundaries in which we could practically apply our joint insights to addressing pressing real-world challenges in the emergent context of the Anthropocene, such as climate change. The two metatheory volumes served as a strong basis for the London symposium. As such, it was a much more structured event than either of the two prior symposia. Authors read each other’s chapter drafts, engaged in deep dialogue, critique, and constructive inquiry. Chapters were sent out for all to read and served as the basis for group dialogue. Specifically, select authors were paired based on thematic resonance. Each author briefly summarized the key points of their own chapter before the paired author offered criticisms and inquiry points and opened up a
group discussion on it. The feedback and insights from the symposium were woven into further chapter revisions. Each chapter was already the result of the cross-pollination forged in the prior symposia, but this second-cycle of reflection, constructive critique, and dialogue constituted a kind of meta-level cross-pollination. This, I feel, led to a more refined, integrated final expression of *Metatheory for the Twenty-First Century*.

Mirroring the context at ITC 2013, because the London symposium was under the umbrella of the IACR Conference there were more critical realists than integral theorists, and there were again some new participants. Those who attended included:

- Eirin Annamo, Norway
- Roy Bhaskar, UK
- Hans Despain, USA
- Mark Edwards, Australia
- Sean Esbjörn-Hargens, USA
- Gary Hampson, Czech Republic/UK
- Mervyn Hartwig, UK
- Gary Hawke, UK
- Nick Hedlund, USA/The Netherlands
- Neil Hockey, Australia
- Otto Laske, USA
- Paul Marshall, Spain/UK
- Iskra Nunez, USA/Mexico
- Lene Nyhus, Norway
- Tim Rutzou, UK/Australia
- Michael Schwartz, USA
- Tone Skinningsrud, Norway
- Nick Wilson, UK

Overall, in the London symposium, the mood of maturity and charged dialectic predominated. The core differences had been drawn out and the sense of critique and discord had become more pronounced. As such, this symposium had a stronger sense of the incommensurability and points of difference, which marked a new, more sober and mature mode of engagement. It was easy to think we all agreed when we were just talking, but when people actually completed
and shared their chapters, it quickly clarified the differences. We could then really see where everyone stood and thus begin a level of substantive and nuanced debate that previously was not possible. Roy was only able to articulate the positions after having read the chapters. Writing the chapters made the details a lot clearer. Of course, part of the reason the differences showed up more strongly at the London symposium was simply that more CR scholars showed up at the IACR conference, but they weren’t so sympathetic to IT that they would fly across the world for a one-day event.

The honeymoon phase had ended, but, it seemed, there was enough passion and resonance—perhaps most prominently around our shared commitment to emancipation and flourishing in the real world—to keep us going. While the sense of difference indeed became more pronounced in this symposium, the focus on real-world service functioned as a concurrent and countervailing tendency that built solidarity as well. In many ways, it felt like a deep connection and alliance had emerged which was not only founded on a prima facie sense of resonance and complementarity, but also a respect for some very deep (and sometime charged) differences and disagreements. Indeed, we were discovering, it was often precisely in this sense of dialectic and difference that the most potent and provocative transformational potentials dwelled.

However, there was a paradoxical sense in which the hermeneutics of generosity in the spirit of the engagement seemed to hold and contain such discord. It felt as though we had moved into a shared space in which there was enough intimacy, understanding, and solidarity for us to be more unabashedly real and raw with each other. The passion and love for reality, truth, and
wisdom was tangible. Our hearts were fully in it and the sense of deep care for our beautiful and imperilled world was profoundly palpable. There was a potent emotional sense of shared love and concern for the planet and alignment around the project of emancipation, yet a deep sense our differences were also present. As we dialogued, explored, critiqued, and inquired together, it felt as though we had moved from more of a pseudo-community to a real community, in that we were able to incorporate conflict and difference in a full and robust way, yet do so with respect and trust in our enduring bond and shared commitment. There was something of intense beauty in holding this dialectical tension in our hearts and minds; by the end of the last session, nearly all of us found ourselves moved to tears—a rare sight at an academic symposium. There was a sense that we had moved from an emphasis on identity in the first symposium, and slowly developed the sense of difference in and through the second and were now arriving at a sense of strong difference simultaneously with that of identity—a kind of dynamic and messy identity-in-difference.

It was a special day—and for many of us, our last with Roy, our dear friend who many of us hold as a great, deeply loving man and philosophical genius at a level that is difficult to appreciate at this point in history. Roy presented his typology of five positions within the CR-IT dialogue (presented below), as a useful way for us to reflect on the multi-year engagement and the positions represented in the room (and the books). This felt like an apt offering for our moment, as there was a sense that we had reached a point of culmination and maturation in the process and had, in some respects, settled into various positions along a spectrum of identity and difference. However, as was reflected in Otto Laske’s suggestion that there is more
of a dynamic dialectic than a settled sense of positions, the atmosphere of the exchange felt far from settled. Rather, there was a potent sense of passionate, vital, and transformational-dialectical charge suffusing and impelling the collective field. Interestingly, dialectical thinking seemed to have been a key point of contention, both in terms of critiques along the lines of ‘having a dialectical metatheory’ as a position and ‘embodying dialectical thinking’ as an integrated cognitive-emotional-social mode of engaging the process.

Other than a number of postgraduate seminars at the UCL Institution of Education, this was to be Roy Bhaskar’s last public appearance. He died a few months later, on November 19. Roy devoted his life to a struggle to win the intellectual high ground for a global society of universal free flourishing and was greatly appreciated and loved by all who knew him well for his cheerfulness, his generosity, his warmth and inclusiveness, his talent for making people feel very special and give their best, and above all for his gentleness and his love. These qualities were richly in evidence at the symposium, even in illness. Without Roy’s exuberant support, the CR-IT dialogue would never have happened. His absence will make a huge difference, but countless others will draw inspiration and strength from his life and his affirmation of the creative powers and potentials of human beings as such. Among his last words as he left the symposium, underlining the primacy of self-change in the demi-real, were: ‘We are all TINA compromise formations.’ When we get rid of the compromises, human creative potentials are unleashed.
Symposium 4: Integral Theory Conference, Sonoma State University, July 2015

The fourth CR-IT symposium, “From Metatheory to Metapraxis: Critical Realism, Integral Theory, and Emancipatory Impact,” was held as a post-conference event of the 2015 International Integral Theory Conference, hosted by Sonoma State University in the San Francisco Bay Area. Whereas the previous symposia explored a multitude of themes as expressed in the various chapters of the metatheory books, this one-day symposium was an opportunity to reflect on the largely finished books, the key critiques each metatheoretical school had of the other, and how these are of practical consequence for emancipatory action. This pursuit was not one of mere abstraction, but rather was grounded in a commitment to ‘seriousness’ or the coherence of theory and practice. The sensibility of this symposium, in highlighting the move from metatheory to meta-praxis, from right view to right action, was closely aligned with the theme of the overall conference: “Integral Impacts: Using Integrative Metatheories to Catalyze Effective Change.” In this spirit, we looked at next steps in the dialogue and how we can more effectively forge alliances across metatheoretical boundaries in service of real-world emancipatory impact and planetary flourishing. In contrast to the previous symposia, this one was not by invitation, but was open to all conference attendees. Participants included:

- Alina Abraham, USA
- Bruce Alderman, USA
- Byron Belitsos, USA
- Ken Burrows, USA
- Annick De Witt, The Netherlands
- Gene Dunaway, USA
- Sean Esbjörn-Hargens, USA
- Jed Fox, USA
- Nick Hedlund, USA
- Mary Janicke, USA
- Chandana Kulasuriya, India
We began the day by focusing intently on the epistemic fallacy, with sessions focused on the epistemic fallacy and the critique of IT, and epistemic fallacy and the ‘defence’ of IT. Part of this dialogue engaged Ken Wilber’s keynote address at the conference, in which critical realism was heavily referenced, “At the Frothy Edge of Geopolitical Impact: Nation Building in Ukraine (and a Brief Look at Pluralistic Ontology),” later published as an afterword “Realism and Idealism in Integral Theory” (Wilber, 2019) in Schwartz and Esbjörn-Hargens (2019). The dialogue that ensued explored the fascinating and subtle space ‘in between and beyond’ the more introductory and somewhat polar debates of past symposia in which the orientation tended to focus on whether or not IT commits the epistemic fallacy (in the sense of an either/or). It seemed as though we were collectively beginning to forge a ‘third way’ beyond this more polar orientation (and exploring the contours of the possibility of a both/and), discussing contexts of its validity and application.

In the later part of the symposium, we heard from integral theorist Zak Stein about his collaborative work with critical realist Hans Despain, articulating what new forms of emancipatory metatheoretical praxis can look like in mobilizing both IT and CR for purposes of diagnosis and strategic intervention in the domain of educational reform in the United States.
These conversations were so rich that we ended up developing two more chapters for the book series—one on the epistemic fallacy and one on the applied metatheoretical collaboration of Zak Stein and Hans Despain. We completed the day with a ritual and moment of gratitude for the extraordinary life and philosophical contributions of Roy Bhaskar.
APPENDIX THREE—Visionary Realism and Spirituality: Reason, Faith, and Post-Secular Re-Enchantment

The fate of our times is characterized by rationalization and intellectualization and, above all, by the ‘disenchantment of the world.’

*Max Weber*305

I don’t believe in God, but I miss him.

*Julian Barnes*306

The third sub-aim of this study is to explore the spiritual dimensions of the metacrisis, specifically as they relate to questions of science and reason, disenchantment and re-enchantment, moral coherence, and social solidarity vis-à-vis cultural evolution in the wake of modernity. The visionary realist approach is applied, substantially buttressed by the work of Jürgen Habermas, in understanding the pivotal dynamics at the faith-reason interface in order to suggest a new pathway forward by outlining a vision for a post-secular spirituality that can unite science and the sacred, reason and religion. Such a spiritual sensibility, I argue, can help to address the metacrisis and contribute to the emergence of a eudaimonistic society.

According to Bhaskar’s (2016a) account, there are a number of blockages or counteracting forces impeding the realization of the eudaimonistic society, including:

1) the domination of the personal by the social, of enablement’s by constraints and of power1 by power2;
2) the current imbalance between freedom and solidarity and the concomitant weakening of—and deficit in—solidarity and the sense of solidarity;
3) the atrophying of the public sphere; and
4) the increasing lag of the moral evolution of the species behind its technological evolution (p. 205)

While it could be argued that worldviews (and metatheories) are relevant to addressing all of these forces that are deeply implicated in the metacrisis, and occlude the emergence of a

305 (Weber, 1917/1946).
306 (Barnes, 2008, p. 1).
eudaimonistic society, in this thesis I will focus primarily on the second and third factors—or the deficit in solidarity and the atrophying of the public sphere. Worldviews, which can loosely be understood as generative psycho-cultural structures that undergird cognition, belief, and action, are of critical importance in understanding some of the causes of the current breakdown of the public sphere and social-political tumult characterized by radical polarization, disagreement, and downright cultural warfare.

With respect to the deficit in solidarity, I address this by looking at worldview dynamics in the context of science and religion (and spirituality) and the transformations to a post-secular society. The contentious relationship between faith and secular reason, or religion and science, will be decisive in the shaping of global social processes in the twenty-first century—and thus in the outcome of our urgent global socio-ecological challenges. I therefore aim to generate insight into the faith-reason relationship and its relevance for the emergence of a eudaimonistic society by engaging in an exegesis and genealogy of Habermas’ changing theory of the religion-reason relationship on the way to sketching the contours of a visionary realist spirituality as one possible exemplar of a post-secular spirituality that might cultivate social solidarity while integrating science and spirituality into a coherent vision. Here I draw on Habermas and build on some of his findings in light of critical realism’s secular spirituality, or meta-Reality, which I argue, combined with an expanded (radical or deep) empiricism as articulated by theorists such as William James and Ken Wilber, could offer a compelling pathway towards building solidarity, revitalizing the public sphere, and resolving some critical tensions at the faith-reason cultural fault line.
To further the emergence of a eudaimonistic society through the development of a visionary realist account of and response to the metacrisis, this chapter seeks to explore how and why such a metatheory offers a more adequate integrative understanding and praxis vis-à-vis the metacrisis in the context of spirituality and climate change. Specifically, I draw on Habermas’ analysis of the turn to a post-secular age in the West wherein key questions regarding the relationship between reason, faith, and spirituality are explored in the context of creating a free flourishing society. It is widely held among scholars across an array of disciplines that the fate of the contentious relationship between faith and secular reason, or religion and science, will be a decisive factor in the shaping of global social processes in the twenty-first century—and thus in the outcome of our urgent global metacrisis, from climate change to artificial intelligence to bioterrorism (Bhaskar, 2000, 2002a, 2002/2012a, 2002/2012b; Esbjörn-Hargens & Wilber, 2006; Habermas, 2008, 2010; Wilber, 1995, 1998). As such, the exploration of key generative mechanisms associated with this currently problematic dynamic of polarization between the largely divergent worldviews of faith and secular reason is a crucial and timely endeavour. Moreover, such an explanatory critique necessarily must be complemented by a constructive articulation of conditions for enacting new, emancipatory possibilities for deeper dialogue, mutual understanding, and ultimately integration of these perspectives. Therefore, in this Appendix, I aim to generate insight into the relationship between science and religion (reason and faith), as well as spirituality and its relevance for the metacrisis. I do so, first, by engaging the work of the contemporary German philosopher and social theorist Jürgen Habermas, who has arguably made significant contributions to the aforementioned two-fold project, and, as a
public intellectual, is a leading voice in both academia and the public sphere. Finally, I offer a
critical-appreciative appraisal of Habermas’ approach on the way to sketching the contours of a
visionary realist post-secular spirituality that might go beyond some of the key problematics at
the science-religion nexus.

I will begin by addressing Habermas’ early position on religion and its relationship to secular
reason, unpacking its roots in Max Weber’s theory of rationalization and notion of
disenchantment, before discussing Habermas’ developmental-structural lens and ‘selective
application’ thesis. Upon doing so, I will then discuss Habermas’ turn toward religion (and
spirituality) as a systematic object of inquiry and his mature theorizing regarding the complex
relationship between faith and secular reason as disclosed in his most recent writings. Finally, I
will offer some critical (and appreciative) commentary on Habermas’ proposals and offer an
outline of a visionary realist post-secular spirituality that might offer a pathway toward re-
enchantment in an alienated and polarized cultural landscape.

*Rationalization as Secularization*

In his early work, Habermas’ treatment of religion was thin and asystematic, and tended to
subscribe to the basic tenets of the so-called *secularization thesis*, in which the modern
societies would witness a linear decline of religion and its social influence in the face of a rising
tide of secular reason. This overall view of religion, held by the early Habermas, is largely rooted
in the German sociologist Max Weber’s theory of societal rationalization and notion of
disenchantment (*entzauberung*; literally “de-magic-ation”). As such, I will now turn to Weber’s
highly influential work, in an effort to elucidate more of the complexity of Habermas’ evolving thought on the relationship between faith and reason.

Habermas, in his early phase, was deeply influenced by a Weberian perspective on religion, which essentially couples the process of societal rationalization with secularization. In his seminal studies on the sociology of religion, Weber was among the first, and certainly most influential, to turn critical reason back on itself and forge an in-depth analysis of the “path of rationalization peculiar to the Occident” (Karlberg, 1979, p. 127). Weber’s analysis of the process of the unique areas of rationalization in the West enumerated a multitude of differentiated areas of cultural and societal rationalization—or what he called “value spheres”—including: 1) the rise of modern natural science with its hypothetico-deductive approach, quantitative formalisms, and controlled experiments; 2) the specialization of research activities within the academy; 3) the formalization of various artistic institutions, such as museums and theatres; 4) the emergence of mathematically principled harmonic forms in music expressed in symphonies, operas and the like; 5) the development of linear, as well as aerial perspective in painting and similarly principled sensibilities in architecture; 6) the institutionalization and formalization of scientifically informed jurisprudence and specialized state administration; and 7) the rise of capitalist economic enterprise (Habermas, 1984, p. 157).

Notably, Weber also discussed the sphere of religion (and metaphysics) in this context, but noted that it appears to generally have a glass ceiling in terms of its potential for rationalization, as metaphysical concepts such as “God the Father” or “Being,” in his view, cannot be rationally verified (Edgar, 2005, p. 218). Thus, for Weber, religion seems to be
understood as an intellectual and institutional formation that cannot be fully rationalized, and therefore cannot fully pass through the gates of modernity (given modernity’s demands for rationalization). In effect, therefore, rationalization for Weber was tightly coupled with secularization. This aspect of Weber’s theory is important to underscore, as it seems to be a formative element in Habermas’ early view of religion.

*Rationalization and the Differentiation of the Value Spheres*

Weber’s cultural value spheres—which Habermas (1984) systematically re-coded into the general categories of the *cognitive/natural* (science), the *normative/social* (morals), and the *expressive/subjective* (art)—were for the first time institutionally differentiated via the process of rationalization, beginning with the Renaissance and the Reformation and culminating in the Scientific Revolution and the Enlightenment. Such rationalization emancipated each of the value spheres from their monistic fusion under the totalizing and hegemonic influence of premodern religious authority. As such, it was through this process of rationalization that these value spheres were granted their own relative autonomy and thereby liberated to develop in accord with their own logic and domain-specific aspects of validity (e.g., *truth*, *justness*, and *sincerity/truthfulness*, respectively). As Habermas (1984) states,

> Rationalization led to the formal concepts of an objective, a social, and a subjective world, and to the corresponding basic attitudes in relation to a cognitively or morally objectified external world and to a subjectivized inner world (pp. 235-236).

But while the emergence of critical reason in societal rationalization indeed served to differentiate the spheres of science, morals, and art such that they could pursue their own evolution apart from dogmatic obstruction by the Church, by the end of the eighteenth century,
reason’s application to the natural sphere (in the form of empirical-descriptive inquiry) had gathered such momentum that the *differentiation* of the value spheres devolved into *dissociation*, as Habermas notes. Science became unconsciously coupled with *scientism*, reason became covertly hitched to instrumental reason, and objectivity became a euphemism for objectification. Thus, as will be elaborated on below, the capacity for critical rationality was asystematically and *selectively applied* only to the natural sphere in the form of descriptive, instrumental reason (Habermas’ ‘selective application thesis’). Such instrumental reason gradually rose to dominance, eventually leading to what Habermas calls the “colonization of the lifeworld”—that is, the colonization of the interior intersubjective (normative) and subjective (aesthetic/soteriological) domains and their respective modes of reason. And it is this complex of (instrumental) rationalization, necessarily coupled with secularization, that lead to what Weber famously called the *disenchantment* of the world.

*Disenchantment and Moral Anomie*

The concept of disenchantment—which Weber is purported to have borrowed from the prominent Romantic poet Novalis—is generally understood to refer to the loss of a unifying religious worldview concomitant with instrumental reason’s colonization of the lifeworld as a result of modernity’s aforementioned cultural and societal rationalization processes. As modern European society became increasingly rationalized, it also came to be increasingly dominated by a secularized instrumental reason, and thus ridden with disenchantment. Such disenchantment “essentially *objectifies* the world and thereby denies *subjectivity* to the world,” leaving the natural sphere devoid of intrinsic meaning, value, purpose, and divinity (Tarnas,
2007, p. 21). In this way, disenchantment is associated with the proposition that modernity has
lost access to a dimension of consciousness, a participation mystique, that premodern cultures
were awash in—a sense of embeddedness in an enchanted, divinely ordered, sacred world
characterized by a sense of meaning, purpose, and collective solidarity. The rise of instrumental
reason led to an objectification of the world and concomitant denial of subjectivity and
interiority—a kind of “flatland” materialist reductionism (Wilber, 1995)—that leaves no room
for a deep and meaningful orienting narrative or cosmogony about the place of the human in
the universe, in relation to nature and the divine. A disenchanted world is essentially a cold,
scientific, and profoundly meaningless world with no sense of shared normative or spiritual
vision.

Disenchantment, which Habermas associates with modernity’s characteristic “philosophy of the
subject,” comes to expression in the doctrines of positivism and scientism, which assert the
hegemony of so-called rational, empirical knowledge, and paradoxically deny the ontological
existence of subjectivity in the world, in effect leading to a breakdown of a religiously rooted
moral vision and order. As Weber (1958) states,

> Wherever rational, empirical knowledge has consistently brought about the disenchantedment of
> the world and its transformation into a causal mechanism, a definitive pressure arises against the
> claims of the ethical postulate that the world is a divinely ordered, that is, somehow ethically
> meaningful cosmos. For the empirical mode of viewing the world—and most completely, the
> mathematically oriented mode—develops in principle a rejection of every approach that inquires
> in any way about a ‘meaning’ of what happens in the world (p. 355).

As insinuated above by Weber, the rational-empirical mode tends to transform the sacred
order and ethos of the premodern religious world into an essentially meaningless, mundane
causal mechanism. As Habermas has emphasized, it instrumentalizes the natural sphere in its
attempt to achieve a kind of technical mastery and calculative control in service of greater autonomy and freedom. In this way, Taylor (1989) suggests that we could also call disenchantment “neutralizing the cosmos,” because, he explains, “the cosmos is no longer seen as the embodiment of a meaningful order which can define the good for us [...] We demystify the cosmos as a setter of ends by grasping it mechanistically and functionally as a domain of possible means” (p. 149). As a result of the rise of secular reason and its objectifying scientific-empirical mode of knowledge acquisition, the world thereby was enacted as a system of objects devoid of intrinsic meaning and morality, possessing only extrinsic, instrumental value; no longer a sacred cosmos created, ordered, or guided by the Divine Creator, imbued with purpose and morality, but rather a random heap of meaningless objects with no inherent telos, and thus no morally binding imperative. Disenchantment is thereby viewed as an inevitable result of the modern processes of rationalization and secularization, leading toward an increasing moral breakdown or anomie.

While Habermas’ analysis builds on the Weberian diagnosis of ‘disenchantment,’ or the vacuum of deep meaning pervading modernity, he fails to adequately account for the extent to which this modern condition has been profoundly deepened and exacerbated by the compounding critique of metaphysical truth claims levelled by postmodernity. Modernity’s critique and abdication of premodern metaphysics left a disenchanted vacuum of meaning and normative gravitas in modern society. This problematic void of deep, morally binding meaning was profoundly expanded and deepened by postmodernity’s critique of metaphysics, including the alleged metaphysics of science, expanding modernity’s void of meaning into the vast and
veritable black hole of meaning we call postmodernity. This postmodern condition of compounded spiritual and ethical meaninglessness I refer to as ‘hyper-disenchantment’—the effects of which have become painfully ubiquitous, as the West descends further into a kind of schizophrenic episode of aperspectival madness and anomie, rippling through the highest levels of socio-political life. It is important to underscore the full gravity of this compounded, hyper-disenchanted postmodern condition.

While the modern condition of disenchantment is deeply problematic in its own right, it is critical to understand that within modern society there persisted a powerful ethical metanarrative centred, in practice, around the values of truth and reason (among others). As Bhaskar (2016a) demonstrates in his articulations of an “ethical naturalism,” science itself would be neither possible nor intelligible, at a minimum, without the normative commitment to the value of truth. Thus, in contrast to the orthodox position in the philosophy of science that one cannot derive values from facts (Hume’s Law), science could never be value-free or neutral, but necessarily is bound to a kind of onto-normative value-impregnated position in practice, even if this fact (of the necessity and inexorability of values) is sometimes denied by scientists in theory. A corollary of this fact in the modern sociosphere is that while disenchantment persisted such that premodern metaphysical truth claims were discredited and rejected, postmetaphysical, rational-empirical truth claims nonetheless persisted and even thrived under the auspices of modern science. And these truth claims we not entirely devoid of values. Thus, while modernity certainly reduced the sphere of meaning and values profoundly into a kind of flat, monistic metanarrative that denied values in theory, in practice a normative metanarrative
nonetheless persisted and came to predominate the lifeworld. And this metanarrative, despite its profound limitations and problematics, has continued to function as a powerfully orienting and socially cohering attractor, that even offers the possibility of an inspiring and meaningful cosmogony or Universe Story (Swimme & Berry, 1992). As the cultural revolutions and postmodern philosophies born out of the 1960s have increasingly penetrated the dominant culture, the deconstructive, anti-realist impulse has more recently ‘gone viral’ to the point where the notion of ‘post-truth world’ is hardly contested, as mentioned above (Wilber, 2017b). We are essentially floating in a hyper-disenchanted axiological and ontological void created by modern and postmodern critiques, respectively. The nihilism and anomie of this unique cultural moment can be seen, I argue, in a condition of unprecedented alienation, manifesting a symptomology that includes acts of senseless violence directed inwardly at the self (e.g., the opioid epidemic in America), or outwardly (e.g., in the mass shooting epidemic in America). As the contemporary American philosopher Zachary Stein (2018b) writes:

Modernity is based on a critique and abandonment of premodern forms of metaphysics, while postmodernity has only deepened critiques of metaphysical truth claims further. This has created a novel historical situation in which a planetary society revolves around the absence of a shared metaphysics. The vacuum of meaning at the core of postmodern societies has resulted in a sense of exhaustion and alienation, a state uncomfortable enough to initiate a metamodern ‘return’ to metaphysical speculation (p. 186).

Indeed, living in a world without connection to an intrinsic sense of ‘the sacred,’ an intrinsic sense of meaning or purpose rooted in the ontological order of things, is akin to raising a child without contact with a loving and stable caregiver. It appears that connection to an ontologically or metaphysically grounded sense of meaning and purpose is a vital nutrient in the cultural life of the human soul. Perhaps, I would argue, ontology and the deep meaning it
confers is not only philosophically inexorable, as was argued in this thesis, but also culturally, psychologically, and spiritually inexorable. This proposition shall be revisited below.

Having summarized the broadly Weberian view in which Habermas’ position on the relationship between faith and reason is largely rooted, I will now discuss Habermas’ appropriation of Weber within the larger context of the developmental-structural approach he adopts.

A Developmental-Structural Lens on Rationalization

In my reading, the early Habermas essentially subscribes to the Weberian view on rationalization that I have sketched above. However, Habermas likewise argues that Weber’s view is limited by the historicism popular during his time, and thus fails to recognize the deeper structural dynamics underlying the process of societal rationalization and disenchantment. This leads Weber to conflate the problematics of disenchantment with societal rationalization and the differentiation of the cultural values spheres. So rather than rejecting Weber’s theorising per se, Habermas builds on it by drawing on the tradition of developmental-structuralism (shaped by the pioneering insights of Baldwin, Pierce, Piaget, Loevinger, and Kohlberg, to name a few) to articulate what he sees as a more powerful explanatory lens with which to (re-)interpret Weber’s otherwise sound findings. In this way, Habermas reframes societal rationalization and disenchantment as the outcomes of a cognitive-developmental advance (or vertical transformation) associated with the emergence of *formal operational cognition* (Piaget, 1950), which he also refers to as critical reason (Habermas, 1976, 1989/1962).
Thus, Habermas views disenchantment not so much as the mere pathological objectification of the world via the dominance of instrumental reason, but rather as a much broader evolutionary learning mechanism marked by the emergent epistemic capacity for the knowing subject to disembed from—and reflect on—phenomena in a given domain (be it natural, social, or subjective) and take a decentred, third-person perspective that is relatively free from excessive prejudices, practical interests, and affective identification (Habermas, 1984, p. 312). Moreover, for Habermas, disenchantment cannot merely be equated with instrumental rationality as it involves the “decentring” of worldviews (in a Piagetian developmental-structural sense) and thereby the ability to take a more hierarchically complex, inclusive, and abstract perspective—to make what one was previously unconsciously subject to, or embedded in, an object of conscious reflection (Kegan, 1982, 1994). In this way, disenchantment entails the capacity for critical reflectivity, “whereby the subject can distance itself from its immediate involvement with the principle or value under consideration” (Edgar, 2005, p. 236). Such capacity to take perspective on an object of consideration from an external, disembedded vantage point is an important developmental achievement (and one that fosters a significant leap in human freedom and creative agency). Disenchantment therefore undergirds the epistemic structure necessary for the differentiation of the value spheres and the delineation of their inner logics, in which it is importantly expressed. In short, Habermas views disenchantment (conceived broadly) as a universal cultural evolutionary process associated with the emergence of the capacity for critical reason (formal-operations), while likewise going beyond Eurocentrism by considering its culturally unique manifestation in the embodied historical process of the rationalization of the value spheres in the West.
In this way, Habermas is interested in the distinguishing of disenchantment as such from instrumental reason’s pathological colonization and objectification of the lifeworld, arguing, in the wake of Horkheimer and Adorno’s critiques of reason (Horkheimer, 1947/1999; Horkheimer & Adorno, 1944/1988), that modern social pathologies such as moral anomie are not so much the result of the emergence of critical reason per se, but rather its *selective application* to only one of the three value spheres—namely, the natural-objective in the form of instrumental reason. Habermas (1984) articulates, “even with a decentered understanding of the world [as in modernity’s disenchanted view] there arises a special illusion—namely, the idea that the differentiation of an objective world means totally excluding the social and subjective worlds from the domains of rationally motivated agreement” (p. 73). As I read Habermas here, he is pointing to the idiosyncratic way in which this epistemic capacity for formal operational rationality, expressed as a socially validated or procedural discourse, was idiosyncratically enacted in the West almost exclusively as a narrow sensory-empirical natural scientific approach to knowledge acquisition through instrumental reason. That is to say, it was applied asystematically and asymmetrically to only one of the three cultural value spheres—the objective-natural sphere—which was a key contributing factor in the rise of modernity’s disenchanted scientismic ontology. Habermas (1984) puts it,

A selective pattern of rationalization occurs when (at least) one of the three constitutive components of the cultural tradition is not systematically worked up, or when (at least) one cultural value sphere is insufficiently institutionalized, that is, is without any structure-forming effect on society as a whole, or when (at least) one sphere predominates to such an extent that it subjects life-orders to a form of rationality that is alien to them (p. 240).
And it was this unnecessarily lopsided usage of the capacities of formal-operational rationality that Habermas sees deeply implicated in the core pathologies of modernity, and the global crises we face, particularly the breakdown of a coherent moral order and social solidarity, since reason became coupled with instrumental or ‘objectivating’ reason applied only to the natural sphere through natural science. This indeed may be one of the structural dynamics undergirding the fact that humanity’s technological development has dangerously exceeded its moral and spiritual development.

Unable to clearly distinguish between the universal, enduring elements of the epistemic structure of the modern worldview and the idiosyncratic culturally embedded ways in which that epistemic capacity was enacted historically in the Occident, Habermas argues that the Weberian view of disenchantment is unable to conceptualize this distinction in terms of a broader developmental process that could be characterized as a rationalization of the lifeworld, and thus as an *evolutionary learning mechanism* with the potential for both dignity and disaster, depending on the contexts or conditions of its enactment. Such an alternative evaluation arguably augments and refines the Weberian diagnosis of the pathologies of modernity by suggesting that a root aetiology lies not simply in the loss of a metaphysical-monistic religious worldview, but in the application of the potentials of formal operational reason only to the objective-natural domain and concomitant underdevelopment (and eventual colonization) of the intersubjective/social (normative) and subjective (expressive) spheres that are the source of deep meaning, purpose, and moral cohesion. Thus, for Habermas, the socially pathological expressions of disenchantment appear to result from the *selective application of*
the developmental-epistemic capacities that the process of social and cultural rationalization brings forth and makes available. To address this problem, therefore, would be to pursue a “nonselective pattern of rationalization” to systematically apply the capacities of critical reason (formal operations) to not just one of the cultural sub-systems/values spheres, but to apply it judiciously to all three, while honouring the relative autonomy of their unique logic and respective validity criteria:

The cultural value spheres have to be institutionalized in such a balanced way that the life-orders corresponding to them are sufficiently autonomous to avoid being subordinated to laws intrinsic to heterogenous orders of life (Habermas, 1984, p. 240).

Habermas has thus devoted much of the early to middle phases of his career to attempting to rebalance the values spheres (and their corresponding life orders) by pursuing a systematic application of the faculties of secular (formal operational) reason to the moral domain while also levelling critiques against scientism’s pernicious colonization of the normative and expressive spheres. More specifically, in his early to mid-period Habermas maintained that religion’s function to provide a foundation for moral cohesion and social solidarity would ultimately be replaced through the increasing development of the full potentials of the faculties of critical reason deployed not only to the natural domain under the guise of science, but also in the normative domain in the form of a “discourse ethics.” It is notable, however, that he did not pursue the application of critical reason to the subjective sphere, stating that “perhaps it is the case that only some of the formal-pragmatic relations are suitable for the accumulation of knowledge,” thus implying that the subjective sphere of inner nature lends itself only to aesthetic expressions, such as art and eroticism, based on the “assumption that nothing can be learned in an objectivating attitude about inner nature qua subjectivity” (Habermas, 1984, p.
Thus, from 1953 on, Habermas devoted himself to developing various interrelated aspects of this research programme concerned with the key themes of critical rationality, applied morality and ethics, and discourse and communicative action, which he has referred to as ‘the unfinished project of Enlightenment.’

As such, Habermas held that the function of religion in generating and maintaining social integration would be essentially handed over to the superior authority of secular reason. Expressing such a position, Habermas (1987) writes, “the socially integrative and expressive functions that were at first fulfilled by ritual practice pass over to communicative action; the authority of the holy is gradually replaced by the authority of an achieved consensus” in a discourse ethics (p. 77). In this view, religion is seen as a potential blockage to such rational ethical consensus because rational discourse demands a presuppositionless space, which religion (and its often-fixed presuppositions) are seen to be largely at odds with. Thus, a significant thrust of Habermas’ scholarship up through the 1990s was the development of his rational, tightly structured, procedural-discursive approach to the development of a secular morality, arguably culminating in 1981 with the publication of his two-volume magnum opus, *The Theory of Communicative Action*, which was later translated into English (Habermas, 1984, 1987).

*The Mature Habermas and the Religious Turn*

Despite Habermas’ high hopes and best of intentions regarding his vision for the triumph of secular reason in supplanting the moral functions of religion, this staunchly rational approach,
Habermas began to acknowledge in the later phase of his scholarship, has its problems and limitations, and may not quite be the panacea that it was once thought to be. Perhaps as a kind of dialectical over-corrective to what Habermas considered to be the anti-Enlightenment, spiritualistic sentiment expressed in the zeitgeist of German people leading up to and during World War II, Habermas’ approach, until the last decade or so, has been so tightly formulated in relation to a purely secular reason, that it has essentially choked out any substantive role for religion and spirituality.

Borrowing a phrase (curiously) from Max Weber, Habermas (2008) describes himself as being ‘unmusical in religious matters.’ Thus, in his early work, Habermas’ treatment of religion was thin and asystematic, and tended to subscribe to the basic tenets of the aforementioned secularization hypothesis, in which modern societies would witness a linear, increasing decline of religion and its social influence in the face of a rising tide of secular reason. More specifically, for Habermas, religion’s claim to provide a foundation for moral cohesion and social solidarity would ultimately be replaced through the increasing development of the full potentials of the faculties of (secular) critical reason deployed not only to the natural domain under the guise of science, but also, as discussed, in the normative domain in the form of a “discourse ethics.” As such, Habermas once believed that the function of religion in generating and maintaining social integration would be essentially handed over to the superior authority of secular reason in communicative action. Expressing such a position, Habermas (1987) writes, “In this view, religion is seen as a potential blockage to such rational consensus because rational discourse

\[307 \text{ See (Habermas, 2008).}\]
demands a presuppositionless space, which religion (and its often-fixed presuppositions) are seen to be largely at odds with” (p. 77).

Gradually, however, Habermas’ position on religion has shifted—along with that of many scholars (see e.g., Gorski et al., 2012)—as he has developed an increasing ‘awareness of what [secular reason] is missing’ and concomitantly acknowledged a greater social role for religion in fostering moral order and social solidarity than he had conceded in his early works. By the mid-1990s, Habermas had begun to turn towards the study of religion in a more systematic and robust way, publishing works focusing on its relationship to secular reason and related issues. Yet it was not until 2001, in the wake of the September 11 attacks, that his characteristically rational commitment to following the empirical disclosures of reality (that is, the resurgence of religion and spirituality in advanced societies; the decline of Western culture in the direction of an increasingly morally problematic and uninhibited self-preoccupation and anomie; and the general realization that modernity threatens to spin out of control) would culminate in a pivotal moment in which he would explicitly acknowledge that the secularization thesis had lost its explanatory power.

On October 15, 2001, while delivering his acceptance speech for the Peace Prize of the German Book Trade, Habermas (and much of the world) seemed to realize that they would need to more seriously acknowledge and explore the role of religion in contemporary society. Religion and secular reason, Habermas conceded, are always in reciprocal relationship; faith and rationality are distinct, yet they are irrevocably dependent on a constructive co-existence.
Religion, he now proclaimed, is an indispensable normative resource (especially for addressing complex social issues), and should not be excluded from the public sphere of rational, communicative discourse. What is needed, nonetheless, is that the content of religious language should be taken up and re-worked in the light of a postmetaphysical, secular rationality so as to make it universally non-exclusionary and fit to be incorporated into the public sphere of democratic discourse. In short, Habermas adopts a post-secular position, expressing what he now sees as a necessary corrective to the secularization thesis—that religion will not be transcended and negated in line with the ideals of the European Enlightenment, but rather will be sublated and continue to play a highly significant role in modern societies. Thus, for Habermas, secular reason should strive to engage religion in constructive dialogue with an aim of working together to address urgent planetary challenges such as climate change.

This overall shift in Habermas’ approach constitutes nothing short of a culmination and partial resolution of an evolutionary crisis in his thinking, leading him to the emergence of a new, in my opinion more realistic, philosophy of religion. Since that pivotal moment in October of 2001, Habermas has gone on to chart a path of potential integration in relation to secular reason and faith—or procedural postmetaphysical thinking and substantive metaphysical thinking, respectively. In his most recent work, Habermas expands on his views of the optimal right relationship between religious faith and secular reason while outlining his vision for a respectful dialogue between these (all-too-often polar) intellectual formations. Such a project, Habermas
underscores, holds great practical significance in relation to our daunting global eco-social problems.

A key question then, is how does Habermas envisage such a constructive dialogical encounter between religious faith and secular reason? What are the conditions for such a possibility to be enacted? Habermas addressed these questions in his 2010 anthology, *An Awareness of What Is Missing: Faith and Reason in a Post-Secular Age*. The slim volume was the fruit of his dialogue with four scholars representing the Jesuit School of Philosophy—Norbert Brieskorn, Michael Reder, Friedo Ricken, and Josef Schmidt—which took place in Munich, Germany in 2007.

In his key contribution to the volume, “An Awareness of What Is Missing” (Chapter 2) Habermas expands on his views of the optimal right relationship between faith and reason, responding in part to Pope Benedict XVI’s 2006 address on the subject following their well-known public dialogues. Here the outlines for his new dialogue and ultimately more synergistic relationship between faith and reason are delineated.

Setting the context, Habermas highlights that this post-secular religious resurgence co-arises with an increase in the frequency of religious conflicts, particularly between Christianity and Islam, with the key point of tension being the fundamentalist mindset founded on a concrete operational, literalistic interpretation of the holy scripture, which clashes with fundamental convictions of modernity. He warns of the grave dangers of the nearly ubiquitous refusal to engage in constructive communication that are encountered in two distinct forms of ideological
fundamentalism: religious and scientismic (or idealistic and materialistic, respectively). Rooted in his characteristically emancipatory axiology, Habermas is a relentless critic of both of these fundamentalisms and the systematically distorted forms of communication and consequent social pathologies that they tend to engender. In the post-secular age of the unexpected spiritual and religious renewal, these issues are becoming more and more important.

Concomitantly, Habermas is equally committed to the articulation of what he sees as healthier, more compatible, and complimentary counter-expressions of both faith and reason. In contrast to a purely secularized reason, religion, Habermas argues, possesses profound historical traditions that function as powerfully inspiring moral forces—forces that hold the potential to garner social solidarity and ethically informed collective action in tandem with reason. Secular reason, Habermas argues, can’t ‘get the job done’ in the moral domain wherein his primary interest lies. Secular reason thus needs to tap into the superior motivational powers that only religion can engender.

But in order to do so, Habermas (2010) argues, two presuppositions are requisite: 1) “the religious side must accept the authority of ‘natural’ reason as the fallible results of the institutionalized sciences and the basic principles of universalistic egalitarianism in law and morality” (p. 16); and 2) “secular reason may not set itself up as the judge concerning truths of faith, even though in the end it can accept as reasonable only what it can translate into its own, in principle universally accessible, discourses” (p. 16). Thus, Habermas seeks to preserve a relatively autonomous role for faith within its own domain, while preserving reason’s partially
supervening authority with regard to postmetaphysical, rational-secular discourse. As the argument goes, secular reason, manifest as modern science, broke with the metaphysical constructions of nature and history/culture that dominated the premodern era. Nature and history became the dominion of science, and the medieval synthesis of faith and knowledge was split asunder. Modern philosophy thus rejected religious/sacred knowledge (faith), regarding it as irrational and dogmatic, and thus fundamentally alien, extraneous, and anachronistic. Habermas thus proposes that a new dialogue between reason and religion might be supported by a deepening of secular reason’s self-understanding through a new genealogy rooted in the acknowledgment of the shared origins of reason (philosophy) and faith (religion) in the Axial age (in the middle of the first millennium BCE).

In an effort to complexify the relatively sharp distinction between religious faith and secular reason that Habermas championed in his earlier work (as discussed above), his new genealogy of reason highlights a number of important similarities and points of convergence with faith. To begin, Habermas (2010) suggests that, in its Platonic origins, premodern, metaphysical philosophy and its mode of substantive rationality, like religion, was a contemplative, soteriological path, offering a promise of salvation comparable to that of the other cosmocentric intellectual traditions (p. 17). Thus, in what appears to me as a complicated and under-explicated move, Habermas seems to be implicitly decoupling pre-rational, concrete operational cognition and mythic-literal religion, as well as formal operational cognition and reason, arguing that “from the perspective of the cognitive advance from mythos to logos, metaphysics can be situated on the same level as all of the worldviews which emerged at that
time [the Axial age], including Mosaic monotheism” (p. 17). From this hermeneutic vantage point, Habermas suggests that each of the emergent Axial worldviews, both religious and philosophical: 1) enabled a synoptic, transcendent view of the world as a whole; 2) distinguished myriad surfaces from underlying essences; 3) highlighted the place of the individual in the world; and 4) underscored the responsibility of the acting subject (p. 17). On these grounds, Habermas ascribes the origins of (postmetaphysical) secular reason to both philosophical metaphysics and religion, arguing that:

if religious and metaphysical worldviews prompted similar [developmental] learning processes, then both modes, faith and knowledge, together with their traditions based respectively in Jerusalem and Athens, belong to the history of the origins of the secular reason which today provides the medium in which the sons and daughters of modernity communicate concerning their place in the world (p. 17).

Thus, Habermas’ new genealogy provides the grounds of a more complex, sophisticated view of the relation between faith and secular reason that he hopes communities of faith will find more satisfactory than his earlier, simpler, ‘growth to goodness’ position, and therefore invitational for dialogue. In apparent contrast to his earlier position, he is now opposed to both the view that reason should deny religion of any rational content, as well as the Hegelian view that “religion represents an intellectual formation worthy of being recalled, but only in the form of a ‘representational thinking’ which is subordinate to philosophy” (p. 18). For Habermas, “faith remains opaque for knowledge in a way which may neither be denied nor simply accepted” (p.18). This failure of secular reason to assimilate faith leads Habermas to speak of the “unexhausted force of religious traditions” in a post-secular age: “secularization functions less as a filter separating out the contents of traditions than as a transformer which redirects the flow of tradition” (p. 18). Habermas suggests that reason on its own cannot cope with the ‘defeatism’ concerning its status highlighted by its eclipse in both postmodern and scientismic
contradictions— the dark expressions of the European Enlightenment profoundly undercut the normative appeal of reason by instrumentalizing it (Horkheimer, 1947/1999; Horkheimer & Adorno, 1944/1988). But Habermas (2010) takes the position that secular reason’s ability to garner moral solidarity in the face of planetary threats, which can only be addressed in the public sphere, is weak: “practical reason fails to fulfil its own vocation when it no longer has sufficient strength to awaken, and to keep awake, in the minds of secular subjects, an awareness of the violations of solidarity throughout the world, an awareness of what is missing, of what cries out to heaven” (p. 19).

Having summarized the broad strokes of Habermas’ mature position on religion, albeit in a necessarily cursory manner due to limitations of length, I will now offer some remarks by reflecting on Habermas’ proposal from a critical-appreciative perspective.

**A Critical-Appreciative Appraisal of Habermas’ Proposal**

Within the discourse addressing the nexus of faith and reason—or science and religion, as it were—Jürgen Habermas, in my view, has made important, influential contributions and therefore should be engaged and understood, irrespective of one’s assessment of the relative merits of his particular proposal. In this chapter, I have sought to generate insight, however limited, into the relationship between faith and reason with an eye for its broad relevance in the ecological domain. I explored Habermas’ early position on religion and its relationship to secular reason, founded on a Weberian notion of rationalization leading to disenchantment and secularization, re-interpreted through a developmental-structural lens; his selective application
thesis and its logical trajectory towards his development of a secular discourse ethics; and finally his turn toward religion and his mature propositions regarding the relationship between faith and reason vis-à-vis global eco-social challenges. In my view, such a broad perspective on Habermas’ contributions to the conversation around the key dynamics to be addressed in forging a more mutually respectful, reciprocal, and synergistic relationship between faith and secular reason leaves me with a sincere sense of appreciation for him and what he has brought to the table. While it may be the case that the conflict between faith and secular reason, or science and religion, has been overstated by some, and indeed greater commensurability already exists, it seems clear to me that, in a very broad sense, deep tensions between these formations (at least as they are enacted by significant percentages of humanity) persist and seem only to be coming to a head in our rapidly globalizing world. To whatever degree such points of divergence and tension exist, I argue that Habermas’ proposal is generally a helpful starting point that scholars and practitioners can and should engage. However, a number of the particulars that he proposes are worthy of constructive criticism as well.

Firstly, Habermas’ latest approach could rightfully, in my opinion, be accused of some degree of instrumentalization of religion. This was a point discussed by some of the Jesuit scholars with which Habermas (2010) collaborated in his aforementioned book. Such a dynamic appears to be rooted in the hitherto unnamed key influence on Habermas’ view of religion: that of Immanuel Kant. Accordingly, Habermas tends to subscribe to what could be seen as an overly narrow, Kantian view in which religion is essentially relegated and confined exclusively to the moral domain of practical reason, and is not a valid source of ontological truth, but rather is
seen as solely a functional source of moral goodness and thus social solidarity and powerfully sustained collective action. This position, in my view, is an overly narrow and rigid categorization that overlooks, perhaps most notably, religion’s spiritual, soteriological, and expressive dimensions, as well its intrinsic value as a deep source of meaning and purpose in people’s lives.

Secondly, Habermas’ conception of the optimal right relationship between these two entities could be criticized for the asymmetrical demands that it wages: faith/religion, it could be said, is asked to give up more than secular reason. On the one hand, such a critique, in my view, could partially be rebutted by reference to Habermas’ notion of a developmental-structural evolution of cultural worldviews. For Habermas, the culmination of modernity in the European Enlightenment was concomitant with the emergence of reflexive, secular reason (formal operations) out of an earlier, less complex form of cognition (pre-formal, concrete operations). Thus, post-metaphysical, secular reason at the end of the day for Habermas, even with his new genealogy and other nuances in mind, is a more complex and descriptively inclusive form of (procedural) rationality relative to the (substantive) rationality generally associated with the metaphysical proclamations of the premodern, faith-based expressions of religion. Therefore, the aforementioned asymmetry of demands could be understood to be partly a reflection of the asymmetry of deep (cognitive) structure embedded within these two entities (as they have generally been enacted to date), rather than an arbitrarily imbalanced proposal.
At the same time, I would argue that this asymmetry needs to be balanced, at least to some extent, by waging additional demands on secular reason. To the degree that secular reason manifests itself in the form of scientism and tries to make ontotheological or teleological claims (e.g., that the universe is a random, meaningless place, without purpose), it must narrow its purview, ceding such authority to religiosity. Similar to how religion colonized all three value spheres during the medieval era, scientism has come to largely colonize them in the contemporary world. Thus, while Habermas is himself a powerful critic of scientism, he fails to explicitly highlight the importance of this dynamic for working out the problematic relationship between faith and secular reason.

When I consider this situation in the global geopolitical context of the early twenty-first century, what stands out to me in terms of the most important gestures to be offered up, are not so much what faith/religion needs to give up or concede (as important as that may be), but rather what secular reason should offer to religion. We live, after all, in a world that can arguably be seen as hyper-modern—a world in which the secular-rational institutions of modernity (e.g., neoliberal capitalism) have encroached in a hegemonic manner on the lives of nearly every human being on the planet. Mirroring scientism’s colonization of the lifeworld, the socio-political vehicles for secular reason have likewise colonized much of the social and ecological world, creating massive inequality, alienation, and ecological degradation. Such an understanding of the pragmatic relevance of this missing piece in Habermas’ proposal only amplifies the importance of its inclusion.
Overall, Habermas’ conception of the optimal relationship between religion and secular reason, as I read it, is attempting to decouple religion from its modern designation as a solely pre-rational (concrete operational) mythic-literal entity: religion can assimilate reason without a full jettisoning of its own pre-rational, faith-based elements. Likewise, postmetaphysical reason can begin to decouple itself from its staunch designation as purely secular—and thus begin to increasingly enact itself in a post-secular form that draws on enduring religious (and spiritual) axiology and soteriology in service of fostering a deep sense of intrinsic meaning and purpose, as well as its extrinsic sociological functions for solidarity and moral cohesion. In this way, Habermas seems to be inhabiting an increasingly integral sensibility in the sense that he is now working across levels of developmental (holarchical) stratification in his attempt to honour and integrate the enduring value, and synergistic interrelationship, of each.

While his earlier work seemed to focus, in a very general sense, on the differentiation of premodern religion and secular reason, his later work appears to be a turn toward their integration and valuation in their own right (even while maintaining a complexified developmental view). This enacts the possibility of a new, mythically imbued or re-enchanted (but not de-differentiated, diluted, or regressed) expression of reason and a new, more rationally viable and inclusive form of religion. These novel, increasingly open (yet narrow and humble) forms seem to hold the potential for a much more fruitful and mutually enriching dialogue between faith and reason—religion and science. In my view, Habermas makes a compelling case that such a context for engagement would do much to ease and transfigure the aspects of charged polarization between the two, such that many global eco-social problems,
which express the ideological extremisms of both religion and science (e.g., Islamic extremism, Western neo-colonial hegemony, climate change, etc.), might begin to be alleviated and transformed. While much work remains to be done to explore the sociological adequacy and practicality of Habermas’ proposal, his explicit intention is not so much to generate a comprehensive statement, but rather to initiate an open, ongoing discourse. In this light, Habermas has done much to galvanize a key conversation for our post-secular, metacrisis-ridden age. That said, the strengths of his position need to be built upon, and the weaknesses addressed, such that a fruitful rejoinder between faith and reason, science and religion, the secular and the sacred, can actualize. Indeed, such a reckoning is a critical aspect of addressing the metacrisis. As such, I now turn to address what I see as a crucial pathway that is both illuminated and largely overlooked by Habermas related to the emergence of a post-secular spirituality.

Post-Secular Spirituality, Re-Enchantment, and the Metacrisis

Habermas’ analysis implies that there are at least two complementary pathways to a fruitful rejoinder between reason and religiosity that can redress the problematics of disenchantment and its concomitant unravelling of the moral and social fabric in the West: one related to religion and the other to spirituality. Yet Habermas almost entirely focuses on religion while overlooking spirituality and its potentials to support re-enchantment and social coherence. The first pathway, as Habermas has convincingly proposed, is that religions must generally rationalize themselves by accepting scientific reason in the natural sphere and the basic principles of worldcentric egalitarianism in the realms of law and morality, while reason and science agree to grant religion a sphere of autonomy in which to legitimately inhabit faith, so
long as faith-based, non-procedurally rational claims are not used in the public sphere in contradiction to the fallible findings of science or the basic values and morals of worldcentric egalitarianism.\textsuperscript{308} Essentially, Habermas’ move is to delimit faith primarily to the expressive sphere of aesthetics, such that faith assumes an ontological status akin to poetry; it can be beautiful, and holds the potential to liberate, move the heart, and confer moral cohesion and solidarity, but it cannot be taken as a source of valid truth in the public sphere.

The second pathway to a fruitful rejoinder between science and religion has to do with the spiritual but not religious—or the development of a secular or post-secular spirituality—a pathway generally overlooked by Habermas. Habermas generally holds in low regard the emerging culture of contemporary spirituality, or the ‘New Age,’ while remaining open to more culturally advanced forms of spiritual innovation:

\begin{quote}
what I see nowadays in the ‘esoterica’ sections of bookshops appears to me more as a symptom of ego weakness and regression, the expression of a yearning for an impossible return to mythical forms of thought, magical practices, and closed worldviews, that the Church overcame in its battle against ‘the heathens.’ But history teaches us that religious sects can be very innovative. So maybe not everything on the market is Californian claptrap or neopaganism (Habermas, 2002, p. 152).
\end{quote}

A primary concern for Habermas regarding the culture of contemporary spirituality has to do with its renewal of metaphysics and the concern that it will regressively slide into de-

\begin{footnote}
\textsuperscript{308} For example, in the Judeo-Christian tradition, there are passages in the Torah/Old Testament (e.g., Numbers 15:32–36; Exodus 31:15), that if interpreted literally can be read as injunctions that anyone working on the Sabbath should be put to death. Such a claim is in clear contradiction to the rational principles of universal egalitarianism in law and morality; as such it would not be permissible, under Habermas’ proposal, for a Jew or a Christian to subscribe to the mythic-literal view that one ought to be put to death for working on a Sunday because it is written in the scriptures—but such a view can only be held and argued for outside the discourse of the public sphere.
\end{footnote}
differentiated, dogmatic, closed worldviews that necessarily insulate themselves from the open process of rational discourse, critique, and social validation/falsification (Habermas, 1992, p. 29). In the above passage he signals an openness to the possibility of genuinely progressive spiritual movements that preserve the core epistemological advances of modernity, but clearly, for him they must be post-Kantian, post-critical, and post-metaphysical, rather than “blatantly scrambling back behind Kant’s transcendental dialectic” (Habermas, 1992, p. 28). And his lack of serious engagement with the topic of spirituality seems to signal that he doesn’t see any viable or noteworthy pathways forward. In the remainder of this section, I will make a provisional argument that there are indeed viable pathways forward that can successfully pass through the Kantian gateway, vivaciously claiming a post-secular, post-postmetaphysical status while offering an overarching metaview of life that can fill the existential void left by (post)modernity’s (hyper)disenchantment. Before articulating such a pathway, it is necessary to first offer some orienting remarks about spirituality and its relationship to religion.

With the post-secular turn, spirituality is on the rise in the West (where religion is on the decline), while religion is on the rise around the rest of the world, most notably Islam (Pew, 2015). We are now far enough into the post-secular era that the broad patterns and overarching trajectory in the West can be more readily and definitively discerned: rationalization and secularization appears to correlate with the decline of religion in a given society, while secular worldviews (e.g., agnostic, atheistic) tend to quickly give way to a ‘rising culture and worldview of contemporary spirituality’ (A. Hedlund-de Witt, 2011). ‘Spirituality,’ then, is generally understood as the dimension of human life related to questions regarding
that which ultimately matters most (that is, matters of ‘ultimate concern’) (Fowler, 1981). In this sense, spirituality can be understood as a ‘religiosity’ that can overlap with religion, it therefore being possible to be ‘spiritual and religious’ or ‘spiritual but not religious.’ And indeed, a notably growing percentage of the population in the West now considers themselves to be ‘spiritual but not religious.’ According to survey research from 2017, for example, over a quarter of Americans (27%) consider themselves to be ‘spiritual but not religious,’ up from 19% in 2012 (Pew, 2017). Many social scientists and philosophers have argued for a definition of spirituality as a more experiential-injunctive, intrinsic, and (esoteric) mystical approach to questions of ultimate concern, whereas religion is often associated with a more institutionalized, extrinsic, and (exoteric) mythic-literary approach to them (L. L. Dawson, 1998; Marler & Hadaway, 2002; Wilber, 2017a). While some scholars rightly tend to associate the rise of spirituality with the decline of religious institutions and their cultural influence (see, e.g., Heelas & Woodhead, 2005; Houtman & Aupers, 2007; Houtman & Mascini, 2002), a more nuanced view is needed to adequately grasp the unique predicament of the post-secular age. What has increasingly been clarified in the last two decades is that human beings do not tend to flourish in the absence of coherent metanarratives that confer a sense of overarching existential significance or deep meaning to life, as discussed above. The (hyper-)disenchantment of (post)modernity’s secular worldview is revealing itself to be rather structurally untenable, such that it is increasingly being realized that a secular worldview—devoid of any sense of the sacred or spiritual—tends to leave one feeling fragmented, confused, and exhausted, and awash in an existential ennui. And yet, simultaneously, without some rationalization and secularization in society, the public sphere cannot function to
healthfully support society to address the shared challenges it faces in any kind of principled, democratic, and just manner. That is there is no recourse to reasonably and democratically adjudicate disagreement on matters of truth, reality, justice, beauty. Therefore, I argue that both a robust, rational-grounded public sphere and some kind of generally resonant sense of the sacred or spiritual must come together. To make it through the metacrisis, we need to integrate science and spirituality, reason and religion. Having clarified the sense in which I am invoking spirituality and its relationship to religion, we are now in a position to articulate the broad contours of a post-secular spirituality, which visionary realism aims to do in future writings.
APPENDIX FOUR—Towards a New Human Identity in the Anthropocene

As the sun rose over the Jornada del Muerto (“Journey of the Dead Man”) desert on Monday, July 16, 1945, the world was about to change forever. At exactly 5:30 am at the so-called ‘Trinity site,’ the United States military detonated the first ever atomic bomb, releasing 18.6 kilotons of power and instantly turning the surrounding asphalt and sand into green glass.339

Seconds after the detonation, an enormous shockwave sent a scorching blast of heat across the desert, knocking onlookers to the ground. This detonation released radioactive isotopes into the atmosphere, which eventually spread across the entire planet, impressing themselves into the sedimentary record (Steffen, Broadgate, et al., 2015). This crustal deposition of radionuclides left the unique signature of humanity’s powers imprinted across the Earth, marking the beginning of “the Great Acceleration” wherein exponential increases in technology and economic activities have driven key Earth System indicators into a new state—a phase shift beyond the relatively stable (and hospitable) regime of the past 10,000 years of the Holocene epoch. As such, many scientists now agree, this very moment, on that early July morning in 1945, marked the dawn of a new geological era known as the Anthropocene.340

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339 See www.energy.gov/lm/doe-history/manhattan-project-background-information-and-preservation-work/manhattan-project-1
340 At the time of writing the term Anthropocene has yet to be officially approved and ratified as an official Geological Time Scale by the International Commission on Stratigraphy. Its acceptance, however, seems imminent, and the term has gone viral—penetrating the scientific and popular discourse—and striking a deep resonance in the zeitgeist. The Anthropocene Working Group (AWG) of the Subcommission on Quaternary Stratigraphy of the International Commission on Stratigraphy (ICS) voted in April 2016 to proceed towards a formal proposal to define the Anthropocene epoch in the official geologic time scale. In May 2019, the AWG voted in favour of submitting a formal proposal to the ICS by 2021. The ratification is still in process, and thus a date remains to be decided definitively, but “The Great Acceleration”—a massive spike in the data of human impact on Earth systems, including atomic bomb testing in the late 1940s and into the 1950s, seems to be highly favoured (see e.g., Steffen,
This new geological era is marked by an emergent and unprecedented level of human impact on the material structure of the Earth system—humanity has inscribed its prowess in its very geological and atmospheric composition. The notion of the Anthropocene, popularized by the Dutch Nobel Prize winning atmospheric chemist Paul Crutzen (see Crutzen & Stoermer, 2000), signifies a new geological epoch, identified by stratigraphic and fossil data, and marked by the profound and far-reaching causal power of human intellectual, cultural, and social life in shaping the evolutionary trajectory of Earth system processes as a whole (see e.g., Merchant, 2020; Steffen, Broadgate, et al., 2015). In contrast with previous epochs, the most recent being the generally accommodating and climatically stable Holocene, never before has the trajectory of the Earth system been so radically determined by a single dominant species—a global apex predator par extraordinaire. We have reached a critical threshold in the evolution of the physical planet itself (the planetary physiosphere) when the actions of a single species are demarcating a new geological epoch—a time scale that typically describes periods of at least tens of thousands of years or more. We now live in a time when our human powers have become so powerful and ubiquitous that our impact on nature has literally reached tectonic proportions. Humans can now move mountains and cause earthquakes: for example, research in Nature shows that unsustainable human usage of the water table for agriculture in California’s central valley is causing changes in elevation in the mountains and valley floor, and thus anthropogenic earthquakes (Amos et al., 2014). When taken as a whole, the Anthropocene

\[\text{Broadgate, et al., 2015, situating the most likely beginning of the Anthropocene at or around the detonation of the first atomic bomb in New Mexico in 1945 (Wikipedia, 2021).} \]

\[\text{341 The official geological time scale is divided into ages, epochs, periods, eras, and eons, with ages being the shortest of these nested temporalities.} \]
itself reveals the human as a literal \textit{geological force}\footnote{Of course, one might object that it was not some homogenous collective called ‘humanity’ that produced changes in the Earth’s geological composition that we call the Anthropocene, but rather was largely due to the wealthy, developed nations and their prodigious consumer economies and bloated militaries that burned most of the fossil fuels and so brought us into the Anthropocene. This is also true, and important to note, but does not preclude making species-level generalizations.} of nature. This is a stunning turn in the evolutionary trajectory of the planet, laden with radical implications for our evolving identity and collective self-understanding.

At the level of the material Earth system, the Anthropocene (or the state of the very geological substrate) is a meta-artefact or embodiment of the deeply sedimented unconsciousness from which we have acted, which has critically destabilized the finely tuned bio-geo-chemical cycles within which we have been graciously granted the hospitable conditions for the possibility of emergence and perpetuity of human civilization. The profound partiality and \textit{demi-reality} (or falseness which is nonetheless profoundly causally efficacious) of our modern materialistic and atomistic vision of ourselves and the cosmos, expressed through the hubris of our Promethean techno-economic prowess, now returns to feed back to us our own delusions. The Anthropocene is a lucid mirror of the demi-real shadows from which we have acted, revealing the deep ontological contradictions and absences in our dominant worldview and collective self-understanding. It is a clear reflection and detailed historical ledger of our spiritual immaturity—a reckoning and a sobering reminder of the bill that we have racked up on our collective credit card (\textit{capitalism}, to be sure)—which is now essentially maxed out, rapidly compounding, and past due.\footnote{As Jason Moore (2015) and others convincingly argue, capitalism has always necessarily depended on the availability of ‘cheap nature’ to be extracted or exploited. Since ‘cheap nature’ was either simply taken or acquired at well below its real value, this process can be said to incur compounding ‘ecological debt.’ Because the capitalist} To redress this, we need to embolden the democratic...
lifeworld’s powers to delimit and bind on the reified systemic logics of capitalism, as Habermas (1987) has argued. We also need, at the very least, a shift from monocapitalism to a form of multicapitalism that recognizes multiple forms of capital/value (e.g., psychological, social, spiritual, natural, health, financial, manufactured) and multiple bottom lines (e.g., people, planet, profit, purpose) in a dynamic integrative way. Such a shift would do much to help us transition away from the unchecked excesses of contemporary capitalism.\(^{344}\)

As the myth of Prometheus proclaims, we have been given the stolen fire of the gods—the self-reflexive, radically creative powers of *logos*. But wielding the word—the metacognitive transformative agency to create and forge reality at the level resembling that of the gods (i.e., humanity as a geological force) can only be sustained if we simultaneously develop the wisdom, compassion, care, circumspection, and love of the gods. Otherwise, the asymmetric development of our instrumental intellect (expressed as exponentially more powerful technology) over our moral and spiritual faculties may keep us on a self-terminating trajectory for our species, as Daniel Schmachtenberger (2021) and others have argued.

The Anthropocene signals the anointment of humanity to the status of *demigods*. As the prefix ‘demi-‘ denotes we are ‘half’ or ‘lesser’ gods, with the Promethean fire of *knowledge* conferring

\(^{344}\) See Esbjörn-Hargens’ MetaImpact Framework with its ten types of capital, four types of impact, and four types of bottom line (www.metaintegral.com).
radical powers to create or destroy worlds,\textsuperscript{345} yet we are deeply deficient in terms of our ability to actualize what is of value in life in service of planetary flourishing—that is, we are profoundly deficient in terms of wisdom or \textit{phronesis}. We are also demigods in the sense of Bhaskar’s notion of \textit{demi}-reality: that which is false or illusory but nonetheless causally efficacious and therefore real. As stated above, the Anthropocene is, in part, a mirror of humanity’s \textit{demi}-reality: the false or illusory ideas that have nonetheless been so radically causally efficacious as to drive the Great Acceleration and effectively rupture the functioning of the Earth System as a whole. Put differently, humans are also demigods in the sense of being gods (or radically powerful agents) of \textit{demi}-reality. “It appears the Earth is being put in our hands and we are not prepared for the responsibility,” Stein (2019a) writes. To further the mythopoetics invoked here, it is as if humanity drank from \textit{Lēthē}, the river of oblivion (unconsciousness or concealment) that flows through the underworld, and that unconsciousness or asleepness is now returning to us through the resurgence of the reality principle, embodied and enmeshed in the Earth system. Taken together in its various inflections of meaning, the notion of the human as demigod invokes both our deeply unconscious and irresponsible use of our agential powers, and our higher collective potentials to awaken to the reality of our integral inter-being\textsuperscript{346} with our ecological and cosmological context and evolve into playing a unique role as wise, meta-reflexive participants and stewards of the Earth community. On a deep level, humanity has yet

\textsuperscript{345} Technically, humanity can only create the social world in the sense of transforming, potentially in radical ways, the social structures that we have inherited. But that social world can then supervene on the physical world, and through concept-dependent human activities mediated by exponentially more powerful technologies, can impact—and eventually destroy or catastrophically destabilize—the functioning of the Earth system. Hence, humans can both create and destroy worlds; but, importantly, there is an asymmetric dynamic in which we can only ‘create’ the social world, but we can impact, destroy, or regenerate the ecological world.

\textsuperscript{346} The idea of inter-being is increasingly being thematized as a powerful rhetorical frame or narrative that represents a kind of third way between a strictly materialist conception of interconnection via the first-generation sciences of complexity on the one hand, and a strictly transcendent, mystical notion of ‘oneness’ on the other.
to realize the alethic truth of our self-reflexive, meta-aware nature: we have been given the *logos* of self-reflexive consciousness and the creative and agential powers that it confers. And yet, Stein (2019a) goes on, “[o]ur species is reeling from the shock that comes from realizing that it is up to us to ensure the continuation of the Earth’s life support systems. We are existentially intertwined in a common destiny, both as a species and as a biospheric community. A vast web of life now depends on our stewardship” (p. 67).

At another level, the Anthropocene is a clarion call and potent opportunity to rapidly transform and evolve our self-understanding and culture towards an *alethic resonance* with the field of nature from which we emerged, are co-constituted, and are ongoingly sustained. While coming into this resonance is a radical project of holistic-systemic transformation that inexorably envelops all aspects of human society, the core of it, I argue, is a transformation to a new self-understanding that undergirds a new, regenerative cultural and social formation.

“Anthropo” comes from the Greek word “Anthropos” (ἄνθρωπος), meaning “human,” while “Cene” comes from the Greek word *kainos* (καινός), meaning “new.” Thus, Anthropocene can be taken to mean the ‘new human’ or ‘the age of the new human,’ wherein the totality of our life and identity will inevitably undergo a radical transformation. We find ourselves in a dizzying existential confusion about who we are, as our old, siloed identity frays and is revealed to be both an anachronism and a causal force of the great unravelling. At the same time, the first glimpses of a new vision of ourselves and our place in the order of things is beginning to take
shape. We lurk, awkwardly and anxiously, in existential liminality. We very well may come to see ourselves as a failed species as we are humiliated by our self-created climate catastrophe, or we may move towards the actualization of our potential as benevolent and wise stewards of our complex socio-ecological systems, tending the conditions for life to flourish. Either way, the Anthropocene ensures that our collective self-understanding will undergo a radical re-appraisal and shift. As Stein (2019a) lucidly describes this interrelatedness of the transformation of our shared identity and the planetary crisis:

> Humanity’s inability to understand itself is part of a cascading planetary phase shift. Our identity crisis is coinciding with the dawning of the Anthropocene; the educational challenges humanity faces in the coming decades are in large part about reconstructing our self-understanding as a species (p. 73).

Metatheory, therefore, will play a crucial role in scaffolding our capacity to address the educational challenges of reconstructing our self-understanding in resonance with axiological necessity in the face of the planetary crises of the Anthropocene. We need coherent and compelling big-picture metatheoretical visions in order to give shape to this new identity and understand our new responsibility or ethical imperative to care for all life. Indeed, without our metatheoretically emboldened imagination, we are unlikely to transform from our present default position as a global apex predator species with radically asymmetric powers on a fast track towards self-termination into a new role as a kind of participatory ‘capstone’ species\(^{347}\) of wise and benevolent planetary stewards that can reflexively hold a socio-ecological meta-view.

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\(^{347}\) This is similar to Tyson Yunkaporta’s (2019) discussion of ‘Indigenous thinking,’ which often sees humanity in a unique role as a so-called ‘custodial species’ — a species that can see and take responsibility for stewarding the many relations that constitute the whole.
and take radical responsibility to care for, harmonize, and tend the conditions for the flourishing of each and all through a dialectic of deep ‘listening’ and attunement.

The Anthropocene is enmeshed in the psychological, cultural, intellectual, and spiritual and social dynamics of the late modern worldview and world system. The Anthropocene signals not only the need for new big-picture visions of ourselves and our relations—new philosophical anthropologies and ecologies that re-situate us in relation to nature and the divine. We need new visions, new maps and mirrors, new frameworks and ways of understanding our purpose and place in the order of things. We are assuming a new mantle of relationship to ourselves and the Earth. Humanity is, as Kelly (2021) states, “becoming Gaia” and therefore he refers to our present epoch aptly as the Gaianthropocene. But from where will such transformative innovations in our self-understanding come? As Stein (2019a) notes, “the resources of the lifeworld for meaning-making and identity creation have become almost as depleted as the resources of the natural world” (p. 72). This is where metatheory’s power lies: it has in itself the power to contribute the crucial intellectual resources that can revivify the lifeworld for sensemaking, deep meaning and ethics, identity creation, and transformation, thereby addressing the complex, twenty-first century challenges of the metacrisis (Hedlund, 2016a). We are in the midst of a collective existential crisis, which is itself a major driver of the global

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348 Listening is understood here in a broad metaphorical sense of epistemic receptivity, rather than a narrow literal sense of auditory perception.

349 In contrast to some traditions of ecological thought, such as deep ecology, this notion of humanity as a capstone species implies a need for humanity to own its unique powers and central role in the stewardship of the planetary ecosystem. In some sense, this implies a kind of transfigured anthropocentrism, wherein humanity understands itself to be burdened and blessed with the heavy responsibility of protecting the health of the whole. Hence, what might be called an ‘integral anthropocentrism’ is ethically planet-centric, while simultaneously being anthropocentric in the narrow sense of acknowledging our radically asymmetric transformative agency and responsibility vis-à-vis the well-being of all other species.
metacrisis. Our identity crisis is concrescing precisely at the dawn of the Anthropocene, a synchronicity imbued with gravitas and numinosity. The Anthropocene also invites a new era of radical self-reflexivity, underscoring our potent transformative agency and responsibility to use it to ethically shape our planetary future. And yet the force of humanity is driven, in large part, by the big-picture perspectives we hold—the worldviews, the metanarratives, the meta-memes, and perhaps most aptly the *metatheories* that constitute the deep ‘code’ of our cultural and social operating systems (Freinacht, 2017). Because cultural worldviews evolve and cohere through complex collective processes of convergence, iterative reappraisal, and emergence over longer temporal horizons, they are not so much direct functions of transformative agency and therefore cannot be designed per se. They are, rather, structures that have been shaped by—and are ongoingly reproductively sustained or transformed by—processual flows of collective agency over time. Metatheory, in contrast, functions as the deep code or generator function for the larger streams of cultural negotiation that produce more deeply sedimented worldviews. It could be said, therefore, that in the context of the Anthropocene, *metatheory itself has become a geological force.*

Similarly, Jason W. Moore (2015) and Christian Parenti (Parenti & Moore, 2016) have argued that the term *Capitalocene* is a more apt name for the new geological epoch we are entering, since it is really, as the argument goes, the effects of capitalism that have primarily driven the changes in the world ecology and geology that constitute the Anthropocene. When you look at the geological substrate, the physical markers in terms of atmospheric chemistry and so forth, what you find there are the externalizations of the capitalist world system. There are stunning
changes happening in the relationship between the human being and the Earth. While I would not disagree with Moore and Parenti’s argument, by a similar logic, it begs the question as to what has caused capitalism’s rise as a nearly ubiquitous force on the planet? While there are many complex contributing factors, capitalism as a reified institutional-systemic logic did not arise out of a vacuum. Rather, as Bhaskar and others have argued, capitalism is a systemic expression, and reification, of positivist metatheory, refracted through the lens of neo-classical economic theory and neoliberalist political economic theory. In this context, humanity’s collective self-understanding of human-environment relations and philosophical response to our global metacrisis rises to the fore. The state of the world is thus deeply instructive with respect to the revelation of the shortcomings of our dominant philosophies and metatheories (e.g., positivism and social constructivism) and the collective self-understanding(s) they have produced. The metacrisis, I argue, can thus be seen largely as reality kicking back at us, showing us what is absent or left out in these metatheories: we are witnessing the ‘return of the repressed’ and the resurgence of the real. Since the dawn of the Anthropocene (and the Great Acceleration in 1945), human beings now constitute a demi-real ‘ontological rupture’ in the Earth system as a whole (Hamilton, 2017, p. 9). In this way, the inadequacies of our dominant metatheoretical tradition of (post)modern irrealism as a response to the complex global challenges of the twenty-first century are becoming ever more glaring. There is thus an urgent and increasingly recognized need for more sophisticated and efficacious metatheoretical alternatives that can support planetary flourishing in the Anthropocene. The Anthropocene

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350 These theories are also co-produced by structures of consciousness, specifically Jean Gebser’s (1949/1985) deficient mental structure (ratio) and a hemispheric brain imbalance (left-hemispheric dominance), as articulated by McGilchrist (2012), among other factors.
beckons a new kind of responsibility, a new kind of ethical imperative, for our collective sensemaking and meaning-making to serve the flourishing of life on Earth. As the French integrative metatheorist Edgar Morin puts it, “never before in the history of humanity have the responsibilities of thinking weighed so crushingly on us.”

To collectively carry this ‘thinking weight’ we need metatheorists, in all their guises, coming together to engage in real shared sensemaking and meaning-making, while applying their emergent insights and perspectives to address real-world challenges.

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351 Quoted in Kelly (2021, p. 75).
APPENDIX FIVE—Glossary of Key Terms

Actual: The actual refers to events or patterns of events, whether observed or not (as distinct from their causes or empirical observations of them). One of three strata in critical realism’s depth ontology.

Actualism: The proposition that the domain of the real (causal forces and mechanisms) can be reduced to the domain of the actual (actually manifest events and patterns of events and/or their empirical descriptions).

Alethic truth: The truth of things as distinct from propositions (propositional truth presupposes alethic truth).

Alethic resonance: Participatory human knowledge, agency, and artefacts (e.g., art, technology, social systems) that referentially expresses, amplifies, and/or harmonizes with the truth of things beyond propositions. Alethic resonance points to a tendential alignment or dynamic equilibration between the true or intrinsic structure of an object or system and knowledge (or its contingent technological and institutional artefacts) of that object or system. A phenomenon in which an object or system comes into relative sympathetic entrainment, harmonic alignment, or equilibration with the intrinsic structure or truth of another object or system (as distinct from propositions about it) such that these oscillatory systems tend towards a dynamic coupling by virtue of their structural alignment. Alethic resonance thus relates to the real causal force that an object or system, in its true or intrinsic structure, exerts on another contrasting object or system, causing the latter system to be responsively activated and amplified along the horizon of its harmonic resonance. In this thesis, this term is primarily used to refer to the

Definitions and entries refer to those used in this thesis.
alethic resonance between the constructed world of human social systems ($\text{nature}_2$) and non-human ecological systems ($\text{nature}_1$), human knowing (epistemology) and being (ontology), and so on.

**Apodictic:** Propositional knowledge that is demonstrably or necessarily true (e.g., the conclusions of valid transcendental arguments). An apodictic proposition “asserts what must be the case and, if it’s a valid description of the conclusion of a transcendental argument (a transcendental necessity), cannot be reasonably doubted” (Hartwig, 2007, p. 43).

**Aporia:** A logical contradiction or problem in a theory or system that is insoluble on its own terms. An aporia constitutes an anomaly in a system, underscoring the system’s architectonic instability and implying the need for transfiguration.

**Architectonic:** The deep structure, logics, code, or design principles underlying the construction of a system of thought or metatheory.

**AQAL model:** Shorthand for the essential five elements of integral theory: all quadrants, all levels, all lines, all states, all types. Often used synonymously with ‘integral theory.’

**Bifurcation point:** A critical point of structural instability in a system wherein a phase shift or critical transition occurs, either to an emergent, higher-order state of increased complexity, or to a lower-order state of decreased complexity. From dynamical systems theory (Abraham, 1985; Abraham & Shaw, 1992).

**Complexity:** An object, event, or phenomenon that is ‘interwoven’ (com-plexere, to weave together), meaning that it has open-systemic interconnectivity and non-linear causal interdependence such that deterministic prediction is impossible and causality can only be
inferred retrospectively (i.e., retroduced or retrodicted). In contrast, ‘complicated’ systems are closed systems that can, in principle, be understood in a mechanical-deterministic manner and causality predicted. See Snowden and Boone (2007) for more on the distinction between ‘complex’ and ‘complicated’ systems.

**Concrete universal and singular** (as opposed to the abstract universality of the discourse of modernity): Every object has the following dimensions: universality, processuality, particular mediations, and concrete singularity.

**Concrete utopianism/eutopianism**: Imagining alternative ways of doing things, subject to constraint; a kind of bootstrapping that aims to identify realistically realizable possibilities that could be actualized in the face of substantive, real-world constraints, as opposed to possibilities in an abstract or formal sense. The idea of a concrete utopia refers to real social possibilities that remain unactualized. Whereas the idea of a eutopia refers to a place in which real potentials for greater well-being or flourishing are actualized and experienced. Thus, utopia connotes to abstract visions for a better world, concrete utopia represents concrete, substantive, and actualizable visions for a better world, and eutopia represents the actualization of concrete utopian visions in events and experiences.

**Constellationality**: The coincidence of real distinctions and connections in the world, the co-presence of non-identities or differences within an overarching identity or unity (e.g., the constellational containment of epistemology within ontology, and of the empirical and the actual within the real).

**Cosmic envelope**: The string of all ground-states; that which connects all ground-states.
**Demi-reality:** Vertically and horizontally reductive demi-reality: that which is false or illusory (lacking a real object), but nonetheless causally efficacious and therefore real. Vertically reductive demi-reality refers to the illusory and reductive epistemic simplicity of objects whose ontological complexity exceeds the developmental-epistemic capacity of a social actor. Horizontal demi-reality signifies illusory or false construals of reality that are not a function of inadequate developmental epistemic capacity.

**Development:** In this thesis, I am employing a generally dialectical, developmental view of consciousness, culture, and society. It is important to note that this position contrasts in important ways with the notion of development in its modernist connotations—that is, of a unilinear, triumphalist developmental progression from ‘primitive’ levels of social evolution towards the ‘civilized’ status represented by the modern West. Such an approach has, in my eyes rightfully, been deconstructed by (notably postmodern) philosophers, anthropologists, and sociologists alike, mainly because of its Eurocentric, neo-colonial, and derogatory implications, and its commitment to an oversimplified ontological parsimony that is out of step with the complexities and messiness of the empirical evidence (see e.g. Ferguson, 2002; G. Marshall, 1998). Rather, I argue for a much more complex, dialectical, open-ended, and unpredictable process of change. In this understanding, development is de-coupled from the notion of ‘progress’ (i.e., one can also speak of negative developments), while some form of qualitative or structural change can nonetheless be observed. This means that not only do certain qualities increase or decrease according to specific criteria, but also that different criteria are appropriate for an adequate description of a new developmental stage. Thus, in a developmental movement two or more qualitatively different stages can always be
systematically distinguished (Van Haaften, 1997). Moreover, new or emergent stages do not randomly arise, but they evolve out of, and are in some sense ‘produced’ by, the antecedent stage. In the words of Van Haaften, the later stages “depend on the earlier ones in the sense that the prior stages are necessary (but not sufficient) conditions for the coming about of the later ones. It is in this sense that several stages can be identified as causally and conceptually connected parts of a single developmental sequence” (1997, p. 18). Thus, I invoke a notion of development as a structural change towards increasing complexity, differentiation, and integration, in line with the insights of the developmental-structuralists (or constructive developmentalists) in the field of psychology (see e.g., Cook-Greuter, 1999, 2000, 2002; Kegan, 1982, 1994; Kegan & Lahey, 2009; Kohlberg, 1984; Piaget, 1928, 1977; Piaget & Inhelder, 2000/1969) as well as with, for example, Inglehart and Welzel’s (2005) notions of non-linear societal development, based on the empirical finding that over time the direction of change changes. This notion of development is thus complex and dialectical (rather than unilinear and triumphalist), and describes a process without an a priori posited telos, endpoint, or formal trajectory. As Hartwig (2011) writes, “while rejecting any view of geo-history that sees it as an inexorable process of development towards a pre-ordained goal, viewing it rather as a radically contingent, uneven and multiform process punctuated by regression and foldback, critical realism does hold that there is a certain ‘tendential rational directionality’ in history” (p. 501).

The view I am espousing here also implies that the later stages of development are not univocally ‘better’ morally or otherwise. Similarly, Habermas (1976) speaks of the dialectics of progress, observing that “evolutionarily important innovations mean not only a new level of learning but a new problem situation as well, that is, a new category of burdens that
accompany the new social formation” (p. 164). Moreover, as Kegan (1982) argues, “[a] developmental perspective naturally equips one to see the present in the context both of its antecedents and potential future, so that every phenomenon gets looked at not only in terms of its limits but its strengths” (p. 30). Thus, despite what are in my eyes warranted (largely postmodern) critiques, part and parcel of our understanding of dialectical development is a critical distancing from the “growth to goodness” assumptions that have often plagued the discourse, and a concurrent differentiation between descriptive and normative dimensions of development (see e.g. Stein, 2012).

**Emergence:** Unilateral dependence on a more fundamental level, and a taxonomic and causal irreducibility to it.

**Empirical realism:** First named by Kant, is defined by Bhaskar (1994/2009) as the view “that the world is constituted by the objects of actual (and sometimes possible) experiences” (p. 6). It is the (often implicit) ontology that spans both Humean empiricist/positivist and (neo-)Kantian transcendental idealist lineages. Because it posits a reductive identity or conflation between causal laws/mechanisms, events, and experiences, it is sometimes referred to as a ‘flat ontology’ (Bhaskar, 1986/2009). Empirical realism assumes closed systems to be ubiquitous and therefore assumes determinism and a mechanistic view of action.

**Empirical:** The empirical refers to (semiotically structured) experiences or empirical observations of events. One of three strata in critical realism’s depth ontology.

**Enactment:** The notion that epistemic structures and methods are constitutive of the world. In other words, enactment is the view that the ontological status or being of an object is brought forth through the consciousness (epistemic structures) and behaviour (methodological
injunctions) of the knowing subject—the being or agent engaged in the enactment. Cognition is not the representation of a pre-given world but rather is the enactment of a world through practices, actions, or injunctions—and reality does not exist outside those practices. Enactment is the construction of reality through perspectives and injunctions.

**Entelechial causal force:** That which actualizes what otherwise remains a mere potential. In this thesis, I invoke ‘entelechy’ as a kind of neo-Aristotelian absence-driven mode of self-organization (Bhaskar, 1993/2008, 1994/2009), which does not necessarily imply a subscription to the metaphysics of vitalism.

**Epistemic fallacy:** The reduction of ontology (or being) to epistemology (or knowing). Resonant with the idea of ‘correlationism’ espoused by the speculative realists.

**Eudaimonistic society:** A eudaimonistic society is the critical realist notion of a society in which all are free to realize and actualize their unique singularity or purpose—the free flourishing of the deepest purpose or potential, dialectically realized individually and collectively such that ‘the free flourishing of each is the condition for the possibility of the free flourishing of all’ (Bhaskar, 1993/2008, 2002/2012a, 2002/2012b, inspired by Marx). It is the notion of a society in which heteronomous and false but causally consequential (or demi-real) socio-cultural forms in all four planes of social being (or integral theory’s quadrants) are increasingly shed and relations of oppression, alienation, and exploitation ever less prevalent. Put positively, it is a society that is increasingly aligned with alethic truth, and (holistic) health, (non-hedonic/depth) happiness, and (open, evolving) wholeness are evermore actualized. Such a society could be considered a concrete utopia in the sense that it is actualizable within existing constraints—it is not abstract and untethered from the laws of nature and the patterning of social structures. It
is also a relative utopia, as Freinacht (2017, 2019) discusses, meaning that it is better than what came before, rather than some kind of ultimate or fixed utopia, since flourishing, in principle, is open-ended. Such a concrete and relative utopia, or eudaimonistic society, will be necessarily in a perpetual state of change or open process and will always be a moving, evolving target.

**Four-planar social being:** Human social existence has four planes: material transactions with nature, interpersonal relations, social structure, and the stratification of the embodied personality. There is a general correspondence to Integral Theory’s four quadrants: CR’s stratified embodied personality with the Upper-Left and Upper-Right quadrants; interpersonal relations with the Lower-Left quadrant; social structures and institutions with the Lower-Right quadrant; and material transactions with nature with the Right-Hand quadrants.

**Ground-state:** The transcendentally real self, as opposed to the illusory ego and different from the embodied personality. In humanity, it includes the qualities of consciousness, intentionality, creativity, love, and the capacity for right action. These qualities underpin and sustain our actions (although they are filtered through heteronomous elements within our embodied personalities that distort their expression).

**Hermeneutic attractor:** A causal force, generative mechanism, or structure that governs the morphological or evolutionary trajectory of human interpretive sensemaking and meaning-making systems.

**Holistic causality:** “(W)hen a complex coheres in such a way that (a) the totality, i.e., the form or structure of the combination, causally codetermines the elements; and (b) the form and structure of the elements causally codetermine each other, and so causally codetermine the whole” (Bhaskar, 1993/2008, p. 399).
Holon: A term coined by Koestler that refers to an entity or thing that is ‘part/whole’—a whole that is simultaneously part of a larger whole, and so on.

Ideology: Oppressive, power²-laden beliefs or communications that embody demi-reality or category error.

Immanent critique: A philosophical method associated with Hegel, Marx, and the Frankfurt school of critical theory that employs the logic within a given theoretical or sociological system with the aim of stress-testing a system and/or revealing its own internal contradictions.

Intransitive/transitive dimensions: The intransitive or ontological dimension is the domain of the objects of science, or anything existentially intransitive. The transitive or epistemic dimension refers to the social production of (fallible, relative) knowledge.

Inter-individual epistemic-hermeneutic variability: Differences in perspective (knowledge and interpretation) between individual social actors or persons.

Judgemental rationality: The possibility of judging or adjudicating between better or worse (true or false) grounds for belief and action; arriving at non-arbitrary views about the world.

Kairos: A propitious, critical, or right moment for decisive action. It is a form of time that stands in contrast to the ancient Greek notion of Chronos, or linear quantitative time. Kairos, on the other hand, is a kind of quality of ‘eternal’ or non-linear time that signifies the possibility of opportune and disproportionately efficacious action.

Lacuna: A gap or absence caused by the omission or loss of something necessary to completeness.
Laminated system: Any system in which a number of distinct mechanisms at different potentially emergent levels combine to produce a novel result. These levels are generally ontologically stratified and include physical, biological, psychological, socioeconomic, and cultural.

Law: Contingent tendencies of stable and universal generative mechanisms, powers, or forces. The mechanisms themselves are universal, but they only ever instantiate themselves concretely, relative to a complex conjunction of forces in an open system, or when they are isolated in a closed system experiment. Hence, use of the notion of ‘law’ can be misleading, since it is often interpreted in accord with a flat, empirical realist ontology that construes causal laws in terms of empirical regularities or a constant conjunction of actual events. The chair you are presumably sitting in right now as you read this is contingently occluding the action of the laws of gravity, which would have your body falling through space. Gravity is thus a transfactual tendency whose powers may or may not express depending, for example, on whether you are sitting in a chair. Hence, from a critical realist perspective, ‘law’ must be redefined in terms of the contingent tendencies of generative mechanisms on the level of the real. These laws or causal tendencies express as powers or potentials that may exist even when they are not actualized. Causal laws are understood to be ‘transfactual’ since they can be isolated in a closed systemic laboratory experiment when those tendencies may not express or express differently when in an open systems context—they ‘go beyond’ the actual and empirical ‘facts’ that they express.

Lifeworld: The ‘background’ cognitive horizon or milieu of culturally sedimented preunderstandings, competences, attitudes, etc. My usage of the notion of ‘lifeworld’
(Lebenswelt) in this thesis follows the Habermasian, more sociological concept, in contrast to its earlier, albeit overlapping, phenomenological inflection in terms of what is given in subjective experience (Husserl, 1936/1970).

**Metacrisis:** The deep and complexly interrelated global crises—ecological, technological, political-economic, ethical, existential, and epistemic—and their underlying network of overlapping root causes. That is, the metacrisis is an emergent metasystem—a higher-order meta-structure or complex totality, that coheres in such a way that is endowed with irreducible causal powers and taxonomic properties. Those emergent powers modify, re-pattern, and determine its lower-order eco-social, ethical, existential, and epistemic components. Simultaneously, the structure of those lower-order eco-social, ethical, existential, and epistemic components causally codetermine each other, thereby causally codetermining the higher-order totality of the metacrisis (Bhaskar, 1993/2008, p. 127). The metacrisis is thus a complex laminated metasystem that coheres out of bi-directional, non-linear relations between: 1) eco-social (ecological and social-systemic) mechanisms; 2) ethical (philosophical-normative) mechanisms; 3) existential (psychological) mechanisms; and 4) epistemic (cultural) mechanisms. The metacrisis is stratified not only in terms of emergent levels, but also in accord with visionary realism’s transcendental realist depth ontology. This depth stratified nature of the phenomenon includes an understanding of the metacrisis as ontologically structured in terms of its: causal roots (on the level of the real); manifest events or symptoms

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363 Technically, the metacrisis is composed of ecological, social-systemic, philosophical-normative, psychological, and cultural component-mechanisms, but for the purposes of this thesis, their re-coding into more general eco-social, ethical, existential, epistemic aspects is sufficient.
(on the level of the actual); and epistemic-hermeneutic construals (on the level of the empirical).

**Metamodern**: An emerging geo-historical epoch or period and concomitant cultural sensibility, arising in the wake of (post)modernism. Metamodern, in this sense, overlaps with terms such as post-postmodern, integral, and integrative.

**Metatheory**: Theory about or beyond (first-order empirical) theory—a systematic descriptive-explanatory lens about or beyond a systematic descriptive-explanatory lens. Metatheory has three primary modes: *metatheory α* (alpha) and *metatheory β* (beta)—or philosophical and scientific metatheory, respectively—as well as a third synthetic mode, or *metatheory γ* (gamma).

**Metatheory α (alpha)**: AKA philosophical metatheory or philosophical underlabouring; articulates a general metatheory or philosophy of (and for) the natural and social sciences through formal transcendental investigation of their presuppositions (and those of human practical activity more generally), and subjects the general conceptual frameworks actually deployed in scientific research and practical programmes to critical scrutiny.

**Metatheory β (beta)**: AKA scientific metatheory or scientific overlabouring; engages and/or synthesizes, in systematic and coherent ways, the findings of the first-order empirical sciences.

**Metatheory γ (gamma)**: A third, synthetic mode of metatheory that synergistically integrates α (philosophical) and β (scientific) modes into an overarching, panoptic worldview.
**Nature$_1$** (first nature; extra-human nature): Refers, diachronically, to nature as it preceded the emergence of homo sapiens, and synchronically to the physiosphere and biosphere in aggregate.

**Nature$_2$** (second nature; nature-as-humanity): Refers to the emergent self-reflexive aspect of nature; the sociosphere, or what Teilhard de Chardin (1959) called the ‘noosphere’ or the sphere of self-reflexive mind or consciousness. Nature$_2$ is thus *internal* to and causally dependent on nature$_1$, from which we emerged and that ongoingly sustains our existence (Bhaskar, 1986/2009).

**Object:** Refers to real generative mechanisms, structures, and powers that exist (relatively) autonomously of human minds and can be uncorrelated or ‘out of phase’ with actual patterns of events or empirical observations. The signifier ‘object’ does not refer to gross-material entities (as in IT’s right-hand/exterior quadrants) with ‘simple location’ in space-time.

**Ontological monovalence:** The notion that being is purely positive, that negativity or absence is not real. This has been the dominant view in Western philosophy from Parmenides on. Ontological monovalence stands in contrast with ontological bivalence, in which absence, not just presence, is real.

**Open systems:** Complex, depth stratified systems in which constant conjunctions of events do not occur, and wherein laws cannot be regarded as empirical regularities.

**Performativ** (self-)contradiction: When, in the act of stating its central argument, the propositional content of the statement contradicts the implicit claims or presuppositions of its assertion.
Philosophical underlabouring: Metatheory α ‘underlabours’ for science (via transcendental argument and conceptual analysis) to provide it with an adequate philosophical foundation (the conditions for its possibility) and is therefore synonymous with philosophical underlabouring. It is the practice of clearing out the rubbish of false ideas and category errors so as to support the possibility of alethic knowledge production.

Phronesis: Situated power-aware practical wisdom. One of four principal virtues expounded in Plato’s Republic. For Bhaskar, it is the supreme meta-ethical virtue, which is necessary for dialectical reason.

Postmetaphysical: A Habermasian notion, taken up by Wilber, to refer to knowledge claims that are procedurally rational or methodologically transparent and open to critique by a community of the adequate.

Postmodernism: When referring to ‘postmodernism’ in this thesis, I am using it in a broad sense of the term, not beholden to any single theoretical perspective on it. I will assume it to be relatively unproblematic at this point to postulate that, while there is heterogeneity in perspective among scholars such as Jürgen Habermas, Charles Taylor, Roy Bhaskar, and Ken Wilber, there also appears to be substantial referential overlap and broad agreement among them with respect to postmodernism—it being understood generally as the central antagonist to realism and meta-level knowledge. While I highlight its limitations, it should be noted that postmodernism has pioneered many important theoretical advances of enduring value that any aspiring integrative, metamodern approach ought to deeply engage, including a general underscoring of the complexities of the socially, historically, and linguistically mediated and constructed nature of knowledge production. For example, see Gary P. Hampson’s (2007)
important and insightful article for a rich discussion of such enduring advances and the need for integral studies to engage and include them more extensively. For a discussion of the problematics associated with postmodernism, including the myriad instantiations of its ‘performative contradiction,’ see e.g., Karl-Otto Apel (1994); Jürgen Habermas (1987/2000, 1990); John Searl (1995); Thomas Nagel (1997); Charles Taylor (1989); Ken Wilber (1995); and Roy Bhaskar (2002/2012b). It is important to note here that for Bhaskar, modernism and postmodernism are a kind of dialectically constellated assemblage, and thus postmodernism is not to be understood as a fundamentally novel or discrete intellectual, cultural, and historical formation vis-à-vis modernity. Rather, postmodernism is seen as merely one of five phases in the development of the philosophical discourse of modernity. These stages are as follows: 1) classical modernism; 2) high modernism; 3) modernization theory; 4) postmodernism; and 5) bourgeois triumphalism and endism/renascent fundamentalism. For an exposition of this conception of postmodernism as a late sub-movement within the philosophical discourse of modernity, see Bhaskar (2002/2012b). For a more concise overview, see Hartwig (2011), “Roy Bhaskar’s Critique of the Philosophical Discourse of Modernity.” Bhaskar’s position stands in contrast with that of integral theory, which sees postmodernity as a distinct intellectual, cultural, and historical formation. Visionary realism, in contrast to integral theory, takes up the position of Bhaskar, seeing the postmodern ‘late modern’ or “mostmodern,” to borrow a terms from Charlene Spretnak (1999), expressing and accentuating some of the worst implications and tendencies of modernity itself, albeit largely in the form of ironic, deconstructive critique. Postmodern philosophy has now been thoroughly disseminated throughout Western culture, and its philosophical contradictions and absences have become translated into widespread
social pathologies, including ‘post-truth’ culture and the rise of ‘politically correct’ identity politics and the so-called far left ‘social justice warriors.’ These cultural expressions of the dark side of postmodernism are linked in that they both involve a regression to ideological and dogmatic discourses, as opposed to rational, democratic, and procedural forms of discourse. Postmodernism, I argue, is driven by a kind of anarchic, destructive impulse—a kind of Thanatos as the ancient Greeks would call it. Postmodernism is not without its merits, however, as it has helped to make obvious some of the key contradictions of modernity, thereby beginning to point to something beyond—a post-postmodern or metamodern (Freinacht, 2017, 2019; Rowson & Pascal, 2021; Stein, 2018b; Storm, 2021) intellectual, cultural, and historical formation, which indeed seems to be in the early stages of its emergence.

**Power**\(_1\): Transformative capacity or agency.

**Power**\(_2\): Power-over or oppression.

**Procedural rationality:** A mode of ‘postmetaphysical’ knowledge production adhering to principles of methodological transparency, reflexivity, and social validation.

**Quadrants:** Arguably the primary element of integral theory’s so-called five element or ‘all quadrant, all level’ (AQAL) model. They are understood to be primordial and irreducible onto-epistemic dimension-perspectives (subjective, intersubjective, objective, and interobjective) that ought to be accounted for in any holistic understanding of a phenomenon. Quadrants point to the notion that any occasion or phenomenon can be seen through the lens of two basic distinctions: an interior and exterior perspective; and an individual and collective perspective.
Sentient beings (or holons, as integral theory refers to them) are said to possess these as dimensions of their being.

**Real:** The real refers to the underlying generative mechanisms, structures, or fields that co-produce the flux of phenomena or events. One of three strata in critical realism’s depth ontology.

**Referential detachment:** The detachment of the signifier or act of reference from that to which it refers (an existentially intransitive referent).

**Reflexivity:** The recursive act of self-reflection with respect to intentional agency.

**Retroduction:** Systematic inference of an explanatory cause of an actual event or empirical observation; the move from a manifest phenomenon to an idea of a generative mechanism which, if it were real, would account for the phenomenon in question. A mode of abductive, inferential reason that can be understood as a kind of reverse deduction involving the move from empirical observation of an actual event to formulation of an explanatory account or theory that illuminates how and why that empirical observation was possible. For Bhaskar (2016a), “a retroductive argument asks what would, if it were real, bring about, produce, cause or explain a phenomenon; and retroduction is the imaginative activity of science by which the scientist thinks up causes, or, as we shall say, generative mechanisms which, if they were real, would explain the phenomenon in question” (Bhaskar, 2016a, p. 3).

**Science:** In this thesis, I largely refer to science in a narrower Anglo-Saxon sense of the empirical (natural and social) sciences (science$_2$), although I am aware that in the Anglo-Saxon context it is often defined in the even narrower sense of the strictly empirical natural sciences.
However, I also subscribe to the broader continental definition of science as *Wissenschaft*, or rational, systematic scholarship generally, spanning the natural sciences, the social sciences, and the humanities (including philosophy) and meta-level science (science\textsubscript{1}). As such, science\textsubscript{2} (empirical science) is a subset of science\textsubscript{1} (*Wissenschaft*). Thus, when I use ‘science’ without specification in this thesis, it should be understood to refer to the empirical natural and social sciences.

**Scientific overlabouring:** Metatheory \(\beta\) ‘overlabours’ for science via systematic second-order synthesis to study, coordinate, and integrate its findings. Metatheory \(\beta\) is synonymous with scientific overlabouring.

**Seriousness:** A term Bhaskar borrows from Hegel to signify a theory’s pragmatic efficacy in empowering and improving real-world practice; in short, theory–practice consistency (i.e., ‘walking the talk’).

**Spirituality:** Following Fowler (1981), spirituality is defined as that which is of ‘ultimate concern’ or significance in the existential sense of its meaning or purpose in the face of the totality of life, the inevitability of death, and the vastness of the cosmos.

**Sublation:** To transfigure, transcend, and (non-preservatively) synthesize.

**Superidealism:** A radicalized form of subjective idealism that maintains that “when our theories change, the world they investigate changes with them” (Bhaskar, 2016a, p. 40), since our theories (through their enactment via the structures and methods of the subject) are constitutive of reality.
**TINA formation:** An acronym for There Is No Alternative, signifying a theory that violates alethic truths or axiological necessities and therefore requires compromises as a necessary accommodation to reality.

**Transcendental argument:** Refers to a specialized mode of philosophical inference or retroduction that takes some concretely manifest phenomenon or aspect of experience as given, and then deploys a logic that is neither inductive nor deductive but a kind of reverse deduction, or *retroduction*, of the general necessary conditions for the possibility of that phenomenon—that which must be the case for it to be possible and intelligible. Instead of following the logical trajectory from premise to conclusion, retroductive or abductive arguments move from conclusion to premise, or from what is given in experience to an elucidation of the necessary conditions for its possibility. Such transcendental arguments, for Bhaskar (1975/2008a), are in no way foundationalist, as they begin from the contingent facts implied by the given phenomenon or account they seek to analyze: “Knowledge [including its transcendental variety], viewed as a transitive process, has no foundation—only a structure in time” (p. 189). In Bhaskar’s formulation of philosophical method, both the premises and conclusions of transcendental arguments are contingent facts, but the conclusions, in contrast to their premises, are not necessarily social. In other words, the conclusions of transcendental arguments may relate to the natural world, establishing apodictic or necessarily true synthetic *a priori* knowledge about the world. But they are nonetheless transitive, relative, and contingent truths, since they flow from geo-historically relative premises (Bhaskar, 1975/2008b; Hartwig, 2008).
**Transcendental critique:** Refers to a critique that “demonstrates that an account is inconsistent with the possibility of science (or of human intentional agency as such) and shows what its conditions of possibility are, issuing a *transcendental refutation* (Hartwig, 2007, p. 106). The results of Bhaskar’s (1975/2008b, 2018) transcendental arguments constitute a transcendental critique and refutation of positivist metatheory.

**Transfactuality:** The understanding that ‘laws’ or causal tendencies express as powers or potentials that may exist even when they are not actualized. Causal laws are understood to be ‘transfactual’ since they can be isolated in a closed systemic laboratory experiment when those tendencies may not express or express differently when in an open systems context—they ‘go beyond’ the actual and empirical ‘facts’ that they express.

**Transformational model of social activity:** A model of the relation between people and society on which people neither create society nor are wholly constituted by it; rather, they reproduce and/or change that which is always already given.

**Wilber-4:** The fourth phase in the development of Wilber’s integral theory, characterized by the AQAL model and a metaphysics of spirit-in-action.

**Wilber-5:** The fifth phase in the development of Wilber’s integral theory, characterized by the philosophy of integral post-metaphysics and enactivism.
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