

Theorisations of Teacher Agency: in Relations, Ecologies and Immanent Events

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ABSTRACT

The importance of teacher agency has been cited in relation to school reform, professionalism, teacher retention and addressing contemporary ethical issues. However, teacher agency is often referred to without explicit definition, and different framings appear in the research literature. By exploring the ontological underpinnings of key theorizations, I highlight the need for greater clarity around what constitutes teacher agency and where it is situated. Relational accounts of agency highlight a dialectic of the individual and social in teacher action. This limits analysis and fails to account for how individual action and institutional practice is co-constituted. Indeed, the issue of situating individual judgement within social norms can be traced back to the Enlightenment. Recent attempts to overcome inherent dualisms in describing agency have drawn on pragmatist philosophy, introducing a spatiotemporal dimension to describe the co-evolution of individual action and social norms. The ecological model, drawing on pragmatist foundations, provides analytical power and ontological clarity by characterizing teacher agency as emergent phenomena. Nevertheless, the model retains the centrality of rational human judgement, and I take up the suggestion that teacher agency can be further understood by drawing on new materialist accounts, which decentre the human. Working with Deleuze's immanent philosophy, I show how situating human thought and action as aspects of an event, opens up consideration of the emergent patterning of educational practice. Attention to immanent difference and repetition provides new ways to consider teacher agency, which do not place the responsibility for change solely on the rational judgement of teachers.

INTRODUCTION

The agency of teachers in developing educational practice is seen as central to school reform (Imants and Van der Wal 2020; van der Heijden et al. 2015), standing against trends which de-professionalize teachers through technocratic approaches to curriculum, pedagogy, and assessment (Biesta et al. 2015). Teacher agency has also been linked to issues of teacher retention (e.g. Heikonen et al. 2017), through recognizing that teachers with a greater sense of professional agency have increased intention to stay in the profession. As well as political issues, teacher agency is drawn into ethical questions too. Molla and Nolan (2020) endorse the literature that suggests teacher agency includes commitment to addressing educational inequalities and making morally justifiable decisions. Teacher agency has also been deployed as an analytical tool, for example in considering the features of effective teacher professional development (Kauppinen et al. 2020).

However, in policy and practice teacher agency is often referred to without explicit definition (Eteläpelto et al. 2013). Furthermore, Toom (2015) notes in the introduction to a special edition on teacher agency, that the research literature contains several different conceptualizations of it, and the need for clarity impacts on both empirical research into the development of teacher agency, as well as the ethical and political arguments for its importance. In this paper I will show

that the issue is an ontological one; theorizing teacher agency requires clarity about what constitutes agency and where it is situated. I will begin by outlining the ontologies implicit in existing accounts of teacher agency, before proposing a new characterization: aligning agency with Deleuze's philosophy of immanent events.

To help exemplify the differing ways that teacher agency might be theorized, and argue for the immanent characterization I later propose, I here present a simple example. The intention is to colour the broader pictures that different theorizations provide.

Due to reduced numbers of students on roll, a primary school that I know well had to reduce costs by not replacing teaching assistants as they left. This caused some anxiety for teachers around both support for teaching and learning, but also in relation to some of the administrative duties that assistants support. One teacher had the idea that instead of printing worksheets which would then be glued into books by students, with support from teaching assistants, she would print onto large self-adhesive labels instead. This costs a little more but saves a lot of time and provides a more aesthetically pleasing result, avoiding the wrinkles and turned-up corners of glued sheets in books. With the headteacher's support, this was initially trialled by one year group, and then quickly rolled out across the school. Teachers and pupils alike welcomed the change, and in a small way it alleviated anxiety about having fewer teaching assistants.

How then might we consider the agency in this example, and teacher agency more broadly?

AGENCY AS SOCIAL AND SOVEREIGN

In discussing agency, it is perhaps not surprising that educational theorists draw on theories of learning as well as existing accounts of agency from the psychological and sociological literature. However, these different origins frame agency differently. Some notions of agency in education draw from the learning sciences, where constructivist approaches have long recognized the role of motivations and beliefs in learning (Pintrich et al. 1993; Schunk and Zimmerman 2008). As such, these researchers naturally align agency with the processes of teachers learning (Lipponen and Kumpulainen 2011; Pietarinen et al. 2016). Others adopt a broader view of agency to be to do with actions and perspectives which are goal oriented (Buchanan 2015; Edwards 2015, 2017). Psychological accounts of agency, such as that derived in Bandura's (2001) seminal review, delineate the involvement of intentionality and (longer term) forethought, as well as self-regulation and self-reflectiveness as processes which allow people to maintain, review, and evaluate goal-oriented behaviour over time. This paved the way for scholars who see teacher agency as reciprocally intertwined with professional identity and self-concept (Buchanan 2015; Eteläpelto et al. 2013; Stillman and Anderson 2015; Vähäsantanen et al. 2017; Sherman and Teemant 2021). On the other hand, influential accounts of agency from the sociological literature, such as Emerybayer and Mische's (1998), seek to explain how social structures and inequalities are reproduced by agents, despite individual creativity. This builds on earlier sociological accounts such as those of Parsons (1968), Giddens (1979) and Sewell (1992), in which action is related to social structure.

1
2 This seeming tension between agency as being to do with learning individuals and being socially
3 situated characterizes different approaches to how agency is conceived of in education. Charteris
4 and Smardon (2018) identify a typology of theoretical stances around agency as they consider
5 how it manifests in learning environments. The first stance they delineate is that of *sovereign*
6 agency, in which individuals bring about change through conscious action. An example given is
7 Dweck's (2000, 2007) notion of 'growth mindset' and its role in student motivation. Whilst
8 recognizing that Dweck's theory has considerably more nuance than operationalisations of
9 growth mindset seen in classrooms in recent years, the account of agency as situated in
10 autonomous individuals stands little scrutiny. In our example of a teacher replacing worksheets
11 with self-adhesive labels, we could argue that she independently innovates in changing her
12 practice. However, this fails to account for how a seemingly simple change in practice is entangled
13 with issues such as resourcing, preparation time, and student expectations. Framing the sovereign
14 agency of the teacher alone also excludes from that frame the necessary support from leaders,
15 and the need carefully to navigate the micro-politics of staff roles and relationships within the
16 school. Furthermore, it does not immediately provide us with a way to describe the agency
17 involved in the subsequent rollout of this practice across the school. Making a claim that teachers
18 have autonomous agency fails to recognize that teacher actions are confined and conditioned by
19 collaboration with colleagues, and also by curricula, legal frameworks, and material resources, to
20 name just a few influences. It is perhaps for this reason that sovereign agency does not appear in
21 literature on teacher agency, and I will not dwell on it here. However, it serves as a reference point
22 in relation to issues such as professional development or teacher education, where a focus might
23 be on teachers engaged in making decisions about their own development.

24
25 Whilst for many applications of teacher agency we want to focus on the individual, it is widely
26 recognized within the literature that agency is 'socially mediated' (Wertsch and Rupert 1993: 230).
27 This prompts questions about where agency itself is situated, and Bandura warns that it risks
28 setting up dualisms:

29
30 Theorizing about human agency and collectivities is replete with contentious dualisms that
31 social cognitive theory rejects. These dualities include personal agency versus social
32 structure, self-centered agency versus communality, and individualism versus collectivism.
33 (Bandura 2001: 14)

34
35 Wertsch and Rupert (1993) draw on Vygotsky's dialectical notion of development to help with the
36 issues of situating agency as both individual and social. Anne Edwards (2012, 2015, 2017) furthers
37 this by suggesting that actions are built as a teacher's intentions engage with the possibilities in
38 a given setting.

39
40 I have suggested agency is a crucial element in the dialectic of person and practice and
41 that it may, in some circumstances, unfold when actions are taken in activities, which are
42 themselves located in institutional practices. (Edwards 2017: 5)

1 She draws attention to *relational* agency of teachers in collaboration with colleagues and in
 2 professional development, whereby individual intentions and social values are mutually
 3 implicated. Several researchers take Edward's lead here, for example Pietarinen et al. (2016)
 4 portray teacher agency as highly relational, shaped through teacher interactions between
 5 colleagues, pupils, and parents. A cultural-historical perspective (after Vygotsky) therefore implies
 6 a dialectic of person and practice in which agency is at once both individual and social.

7
 8 practices are inhabited, consist of activities, are situated in institutions such as schools,
 9 which are themselves located in wider policy environments and cultural values; they carry
 10 histories, values and purposes, are emotionally freighted to contribute to the formation of
 11 identity, and are shaped and reshaped by the people who act in them. (Edwards 2017: 9–
 12 10)

13
 14 Edwards builds her account of agency carefully and with attention to the role of mediation (e.g.
 15 by mentors) and therefore provides a basis for situating agency within a dialectic of individual and
 16 collective, as well as considering how teachers develop. In our example of a teacher switching to
 17 using pre-printed stickers rather than worksheets, a relational interpretation suggests that the
 18 problem is simultaneously one of individual practice and identity, as well as an issue of institutional
 19 norms, values, and purposes. We can describe how the institutional practice of sticking worksheets
 20 into books defined a problem of practice, which an individual teacher then resolved in an
 21 innovative way, subsequently engendering new norms of practice. We might even describe the
 22 reduced number of teaching assistants as important to the advent of agency, and the 'emotionally
 23 freighted' context of changing roles within the school. Such an account, drawing on a dialectical
 24 relationship between individual and institutional practices, might account for the role of the
 25 headteacher, expectations of books being well presented, and a host of other features salient to
 26 the relational agency expressed.

27
 28 Nevertheless, in my view there remain two issues with this approach to situating teacher agency.
 29 Firstly, the dialectical ontology which underpins relational agency limits the analytical power of
 30 the framing. By focusing on the individual and the social or institutional, other scales of analysis
 31 are obfuscated. In relation to our illustrative example, what of the macro-level geo-political factors
 32 that are currently resulting in a decline in student numbers in English primary schools? How do
 33 the micro-level realities of asking 30 young children to sensibly put stickers in their books
 34 influence agency across the school? A further limitation to analytical power arises from the socio-
 35 cultural basis of relational accounts of agency. Such characterizations focus on the psychological
 36 and social, at the expense of the material. Whilst policy environments, values, purposes, and
 37 cultures are incorporated within accounts of relational agency, issues of resource, bodies, and
 38 economics are not. For teachers to replace photocopied worksheets with pre-printed labels, the
 39 usability, availability and pricing of stickers, software, and hardware need to be favourable. Whether
 40 or not all students can physically use the stickers is an issue of inclusion. As well as a relational
 41 view settling too readily on two particular levels of analysis, and neglecting the material, the
 42 second issue is that it fails to provide a clear account of how the individual and social are related.
 43 Beyond suggesting that individual action both draws on and changes institutional norms,
 44 introducing a dialectic does not ease the anxieties that Bandura feels around 'contentious

dualisms' which, as we shall explore later in this paper, have a long lineage within considerations of human agency. Here however, we see that relational framings of teacher agency limit what can be framed of the conditions and processes involved.

EMERGENT AGENCY

Rather than deploy a dialectic account of agency, Bandura (1986, 2001) draws on the concept of emergence across different levels of complexity to refute a separation of individual and group action.

the collective performance of a social system involves transactional dynamics, perceived collective efficacy is an emergent group-level property, not simply the sum of the efficacy beliefs of individual members. However, there is no emergent entity that operates independently of the beliefs and actions of the individuals who make up a social system. (Bandura 2001: 14)

A focus on emergence provides two advantages in describing agency. Firstly, it provides a solution to the ontological issue presented by a dialectical framing. Whilst a dialectic between individual and social affords the mutual implication of each, it settles upon two specific levels which are difficult to fully define or separate. Drawing on emergence instead supports the recognition that no particular level or unit of analysis has *a priori* significance. A unit or level of analysis might display phenomena which are not reducible to other levels, but this does not mean that they are ontologically distinct. Secondly, a focus on emergence draws attention to the conditions under which agency occurs. Emergence takes place through the interaction of multiple elements of a situation in such a way that means a simple account of causality cannot be given (interactions are 'nonlinear'). Pre-empting Bandura's concern, Emirbayer and Mische's (1998) seminal work focuses on overcoming dualism within social theories of agency. They trace the philosophical inheritance of this dualism in detail, suggesting that:

Many of the tensions in present-day conceptions of human agency can be traced back to the Enlightenment debate over whether instrumental rationality or moral and norm-based action is the truest expression of human freedom. (Emirbayer and Mische 1998: 964)

They further trace how this was systematized in Kant's account of freedom as normatively grounded free will. Kant (1951) presupposes a 'common sense', which is linked to the capacity of people to extrapolate from their own experience and make judgements about the common good. This stands in contrast to rational, instrumental action, thus establishing dualisms of necessity and freedom; norms and interests. In this way, Kant indirectly provides a theory of practical evaluation, in which individual actions are contemplated according to normative principles. Emirbayer and Mische (1998) show how early social theories of agency (such as that of Parsons (1968)) inherited this dualism, and with it an inadequate account of how free, rational actions both result from and constitute social norms and aims. Here the issues of dualism echo those of dialectic within

1 relational accounts of agency; how are individual actions and social norms related, and how do
2 they influence each other?

3
4 In resolving this, Emirbayer and Mische align themselves with American pragmatism, whilst also
5 noting close ties between this and continental phenomenology. In particular, they draw on Mead's
6 (1932) work:

7
8 Two insights in this work are critical for our efforts: the concept of time as constituted
9 through emergent events, which require a continual refocusing of past and future, and the
10 concept of human consciousness as constituted through sociality, the capacity to be both
11 temporally and relationally in a variety of systems at once. (Emirbayer and Mische 1998:
12 968)

13
14 Mead offers a way to see means and ends as emerging together over time, within ever changing
15 contexts. Adding a temporal dimension to agency overcomes the need for a dichotomy of the
16 individual and social; individual purposes and social norms are co-constituted over time.
17 Emirbayer and Mische (1998: 996) draw heavily on Dewey, as well as Mead, who they suggest
18 subsumes Kant's insights on reflective judgement into his own, whereby common purposes
19 provide intersubjective validity to such judgements. However, as Biesta and Burbules (2003) argue,
20 Dewey's 'transactional realism' resists dualisms premised on the individual and social, as well as
21 those which separate the psychological from the 'real world' (e.g. Dewey 1929). With a theorization
22 of practical-evaluation founded in pragmatist ontology, Emirbayer and Mische develop an
23 account of agency in which means, ends, and contexts emerge together over time.
24

25 THE ECOLOGICAL MODEL OF TEACHER AGENCY

26
27 In relation to teachers, Priestley and colleagues take up this emergent view of agency in their
28 *ecological* approach (Biesta et al. 2015; Biesta and Tedder 2006, 2007; Priestley et al. 2012, 2015).
29 They see agency as a *phenomenon*; something that is 'achieved' rather than situated in an
30 individual, or in a collective.

31
32 We might therefore characterise such an understanding of agency as an ecological
33 understanding in that it focuses on the ways in which agency is achieved in transaction
34 with a particular context-for-action, within a particular 'ecology' (Biesta and Tedder 2007:
35 136–7)

36
37 This highlights how teachers act by means of their environments and how agency emerges from
38 the interplay of individual efforts, available resources and structural factors within unique
39 situations (Priestley et al. 2015: 22). Through furthering the work of Emirbayer and Mische (1998),
40 Priestley et al. build a model of agency which they see as both theoretical and methodological.
41 The model centres on the *practical-evaluative* conditions in which agency manifests, which
42 includes the cultural, structural, and material aspects of a context. These aspects of a context are

not separated ontologically, and this is brought home in the analogy between emergence within an ecosystem and that within educational settings. Ecologies are complex, dynamic systems in which multiple agents interact both with and through the relations between them and the environment and resources therein. The ecological analogy therefore brings to mind the dynamic and situated nature of emergence and draws in the importance of history and adaptation. However, adaptation in ecologies takes place through the processes of evolution and, for some species, through changing behaviours. Here the ecological analogy to agency is stretched by considering teachers: the processes by which agency occur are not biological and they go way beyond the kind of behavioural change seen in most species. Whilst of course the analogy is not the model, it is reasonable to ask what analytical power the ecological model has in describing the interactions involved in emergent agency.

The analytical power of the ecological model owes a lot to Emirbayer and Mische (1998), and rests in being able to describe how *iterational* and *projective* dimensions interact with the practical-evaluative context as agency emerges. Priestley et al. (2015) describe how the iterative includes the professional histories and broader life histories of teachers which condition their patterns of thought and action. The projective dimension includes the short- and long-term intentions of the teachers.

The model thus highlights that the achievement of agency is always informed by past experience—and in the particular case of teacher agency, this concerns both professional and personal experience. The model also highlights that the achievement of agency is always orientated towards the future in some combination of short(er)-term and long(er)-term objectives, values and aspirations. And it emphasizes that agency is always enacted in a concrete situation; it is both constrained and supported by discursive, material and relational resources available to actors. (Priestley et al. 2015: 30)

Priestley et al. deploy and develop their model through an empirical study exploring agency in relation to Scotland's 'Curriculum for Excellence' which developed from initial policy in 2004. Their model of agency allows them to focus on teacher beliefs and aspirations, vocabularies and discourses, and relationships within the phenomenon of agency. It also allows engagement with the macro-level political, the meso-level of interpretation and the micro-level enactment of curriculum. Whilst it is recognized that actors in any complex system have limited understanding of the system as a whole (Cilliers 1998), Priestley et al. exceed the ecological analogy by including ideas, values, beliefs, and trust within the practical-evaluative, as well as histories and aspirations within the iterational and projective dimensions.

agency doesn't come from nowhere but builds upon past achievements, understandings and patterns of action. This is expressed in the iterational element of agency that has to do with '*the selective reactivation by actors of past patterns of thought and action, routinely incorporated in practical activity, thereby giving stability and order to social universes and helping to sustain identities, interactions, and institutions over time*'. A key word here is 'selective'. According to Emirbayer and Mische, 'the agentic reactivation of schemas inculcated through past experience tends to correspond to (and thus to reproduce)

societal patterns. (Priestley et al. 2015: 24, citing Emirbayer and Mische 1998: 971 and 977; emphasis in original)

The ecological model takes from Emirbayer and Mische an ontological foundation which sees social universes, identities, interactions, and institutions as constituted by individual actions. These actions reproduce existing orders and also enable agency, when a change is selectively made. The practical evaluative, iterative, and projective elements of agency 'are analytical distinctions; all three of these constitutive dimensions of human agency are to be found, in varying degrees, within any concrete empirical instance of action' (Emirbayer and Mische 1998: 971). This situates agents within a flow of time, where orientations towards past and future are continually restructured. It also recognizes that individual actions constitute, reproduce and sometimes change the multiple structural, social, and institutional systems of which they are part.

The analytical power of such a model can be exemplified by returning to our example, where the projective aspects of emergent agency might be related to a teacher's aim to have worksheets stuck in students' books, without the support of a teaching assistant. This short-term aim is entangled with longer-term aims too, such as projections around how the children learn from and gain satisfaction at completing pages that have pre-populated information, diagrams, and questions. There may be other aims at play, such as being able easily to differentiate worksheets to support and challenge different learners. The iterative aspects of emergent agency within the ecological model, speak to the knowledge, beliefs, and values of the teacher involved, which in this example might include knowledge about the use of printers and design of stickers, values of neat working and pupil independence, and also epistemic beliefs and pedagogic knowledge around how the children learn. In considerations such as pedagogic aims and strategies, there is overlap between the iterative and projective dimensions, which are linked in Priestley et al.'s (2015) model. This speaks to the continual reorientation of past and future within pragmatist interpretations. So too does the recognition that there is an existing practice being selectively modified: sticking sheets in books becomes using stickers. The iterative and projective aspects of agency feed into the practical-evaluative. In our illustrative example we might delineate the cultural aspects of a supportive headteacher, the relationships with other staff and expectations of book presentation. Structural issues define the problem at hand; the reduction in numbers of teaching assistants, with this in turn being defined by the policy and practice of having such assistance in English primary schools. We might consider the socio-economic climate to also be a structural feature of the practical-evaluative context. Material aspects of agency are more pronounced in the ecological model developed by Priestley, Biesta, and colleagues, than they are in Emirbayer and Mische's work, and here the roles of exercise books, printers and stickers themselves are apparent in the emergence of agency.

There are numerous ways that the aspects of the situation could be mapped through the ecological model of agency. For example, we might consider the teacher's previous encounters with stickers as iterative knowledge, or perhaps the teacher was inspired by social media and we could include this as a cultural influence. The ecological model of agency is not prescriptive, but it has analytical power in recognizing a range of different factors at play in the emergence of agency, and situating these within shifting practical contexts. It also provides an account of what is

involved in agency, and this has been developed further by others. For example, Leijen et al. (2019) expand the model in considering the forms of reflection which support teacher agency. The model also has ontological clarity without settling on just individual or social levels of analysis. Teacher agency is characterized as an emergent phenomenon, where actors are situated temporally in practical-evaluative contexts that are themselves unfolding. There is a great deal to be said for this account of agency.

By drawing on pragmatism, the ecological model succeeds in answering the Enlightenment question of how individual action relates to social structures and norms. However, the answer itself retains an Enlightenment quality, seating agency within *rational humans*. From this observation I wish to highlight the potential for further development in theorizing agency. The *rational* character of the ecological model manifests in the way that reflective judgment is still at the heart of agency. We can trace a lineage of this from Kant to Dewey to Priestley et al., and on to further accounts of reflective practice in Leijen et al. (2019). Whilst an emergent account of agency is permissive of myriad influences, what are we to make of the irrational? For example, the aesthetic and embodied quality of stickers in books, or the emotional character of the personal relationships involved, might go beyond rational contemplation within our illustrative example. We might ask how far an actor can be seen as rationally reflecting on the decisions being made. At stake is the role of affect and emotion in teacher agency.

As well as highlighting the assumed rationality within the ecological model, acknowledging an inheritance from the Enlightenment lead us to a perhaps more substantive issue though, namely an inherent anthropocentrism. Why is the story told through the agency of the teacher, rather than the stickers, for example? Emirbayer and Mische (1998) discuss material contexts and conditions, but their account foregrounds the sociocultural within these. The ecological model more directly references material resources and physical environments, as well as vocabulary, discourses, and curricular resources (Priestley et al., 2015). These material aspects of the practical-evaluative dimension are therefore implicated in the emergence of agency as a phenomenon. However, questions remain around how intentions, histories and material contexts interact, and I will suggest below that pragmatist explanations sidestep distinctions between mind and matter rather than provide a granular account of how this is the case. What is evident though is that the phenomenon of agency is centred on humans (and in this case teachers), albeit situated temporally, socially, and materially. Highlighting the philosophical inheritance of reflective judgement, and how this continues to underpin aspects of the ecological model of teacher agency, paves the way for engaging with discourses which have sought to trouble the central role afforded to rational humans in accounts of agency.

The ecological model of teacher agency provides a clearer ontological foundation than the dialectic of individual and social within the relational model, drawing on pragmatism to describe the emergence of individual actions within cultural, structural and material contexts, based on iteratively derived knowledge and projections of the future. Despite overcoming dualisms, and considerable analytical power, the model remains centred on the rationality of humans in educational change. As such, we will now return to Charteris and Smardon's (2018) typology so as to explore the fourth theoretical stance that they delineate: *new materialist* framings of agency.

DELEUZIAN EVENT

New materialism is a term which encompasses a range of different theoretical perspectives (Coole and Frost 2010). Within this broad church, some theories challenge anthropocentrism by affording agency to non-human bodies and actors, for example Latour's (2005) actor-network theory, or Bennett's (2010) account of vibrant matter. Other new materialist theories draw on feminist critiques of the centrality of rational (European) *man*, and as such question which groups of humans have been considered agential in Eurocentric accounts historically. These theories, I suggest, go further in seeking to decentre the human altogether.

A case in point is the work of Karen Barad (2003, 2007), which is worthy of consideration here because her theory of 'material-discursive agential realism' engages directly with issues of matter and agency, seeking to undermine Cartesian dualities of known/knower, mind/body, nature/culture. An immediate jumping off point in considering how this might be related to the ecological model of teacher agency is in recognizing the importance of 'phenomena' as the unit of analysis in Barad's work. For Barad (2003, 2007) phenomena are produced through the *intra-action* of human and non-human materials; meaning and matter are entangled, whereby:

To be entangled is not simply to be intertwined with another, as in the joining of separate entities, but to lack an independent, self-contained existence (Barad 2007: loc. 19).

This goes beyond claims that non-human entities have agency and argues that agency emerges as a phenomenon, from entanglement. Analytically, this onto-epistemology allows researchers to see what Barad calls *agential cuts*, whereby intra-actions of matter and meaning simultaneously change the course of an emergent phenomena. It also allows focus on the *apparatus* within situations, that is the boundary making processes, norms, and assumptions within a context. Whilst the ecological model describes agency as a phenomenon that is achieved, it remains focused on the situated actions of humans in that achievement. New materialist descriptions such as Barad's afford the phenomena itself agency. This is important as it decentres human action and articulates a world that is constantly emerging.

Barad's agential realism provides a departure from the dialectic ontology which characterizes the relational model of agency, and the inherent dualism of mind/matter which persist in the ecological model. Although working with Barad may prove fruitful, in the rest of this paper I will instead draw on the philosophy of Gilles Deleuze to suggest ways to further the framing of teacher agency. I will show that Deleuze's philosophy offers additional concepts that help situate agency as within events, including around difference and repetition, immanence, sense, affect, and desire. My preference in working with Deleuze here is to do with these conceptual resources, but also because the primary motivation for this paper is to seek ontological clarity. Whilst Barad's use of phenomena provides a form of agency coherent with new materialism, Braunmühl (2017) argues that Barad dilutes distinctions between matter and mind rather than overcoming the historic hierarchy which places mind over matter in consideration of agency. Additionally, as Hein (2016)

1 points out, Deleuze goes further than Barad in rejecting ontological binaries. I believe that Deleuze
 2 therefore provides a clearer ontological basis for considering teacher agency than Barad, through
 3 presenting a 'flat ontology':

4
 5 What is involved is no longer the affirmation of a single substance, but rather the laying out
 6 of a common plane of immanence on which all bodies, all minds, and all individuals are
 7 situated. (Deleuze 1988: 122)

8 It is worth inquiring into how Deleuze's flat ontology overlaps and is different from the pragmatist
 9 foundations that the ecological model draws from Dewey and Mead. Deleuze's rejection of
 10 dualisms resembles pragmatism, and Semetsky shows that 'For Deleuze, as for Dewey, thinking
 11 depends on our coordinates in space-time' (Semetsky, 2006: 81; see also 2008). It is also important
 12 to note that both Mead and Dewey draw on their contemporary Bergson to characterize time as
 13 experiential in quality (indeed Bergson (1999) corresponded with Dewey). Deleuze also draws
 14 heavily on Bergson's work in his recharacterization of time. There is clearly much shared between
 15 these theorists. To get at the differences however, and the consequences of those differences for
 16 situating teacher agency, let us reconsider the selective reactivation of patterns of thought and
 17 action at the heart of the iterative dimension of ecological agency. For example, Dewey says:

18 the principle of continuity of experience means that every experience both takes up something
 19 from those which have gone before and modifies in some way the quality of those which come
 20 after. (Dewey 1938: 27)

21 To Dewey (pp. 38–39), any experience is an interplay of 'objective and internal conditions' and
 22 involves the constant reconstruction and reorganization of our past experiences as well as
 23 anticipation of the future. Nevertheless, the seat of this reconstruction and reorganization is the
 24 individual, and there remains a trace of what Hollins (1977: 59) calls Dewey's 'Hegelian upbringing'.
 25 On the other hand, Skilbeck (1970: 14) suggests that 'Like Kant, he believed the mind plays an
 26 active part in the determinations of the character of its own experiences'. In contrast, Deleuze's
 27 philosophy of immanence seeks to go further than Kant, removing the transcendental subject in
 28 his account of experience:

29 Kant explains that the Ego itself is in time, and thus constantly changing: it is a passive, or
 30 rather receptive, Ego, which experiences changes in time. But, on the other hand, the I is
 31 an act which constantly carries out a synthesis of time, and of that which happens in time,
 32 by dividing up the present, the past and the future at every instant. (Deleuze 1963: viii)

33 To Deleuze, Kant fails to fully realize an immanent account of experience because there remains
 34 an ontologically distinct self which conditions experience with universal concepts, including that
 35 of time. Whilst Dewey brings the self into transaction with the real world, experience and agency
 36 are still centred on a separate individual mind.

37 Deleuze's position can be explained in contrast to Dewey's, by considering how each recover the
 38 presence of forms and relations in the world, whilst each rejecting universals. Biosvert's (1988)
 39 analysis suggests that Dewey does this by arguing that 'perception, apprehension, lays hold of
 40 form, not matter' (Dewey 1938: 240). Dewey is also clear that forms and relations are not universals:

1 The relation is thus invariant. It is eternal, not in the sense of enduring throughout time,
 2 or being everlasting like an Aristotean species or Newtonian substance, but in the sense
 3 that an operation as a relation which is grasped in thought is independent of the instances
 4 in which it is overtly exemplified, although its meaning is found only in the *possibility* of
 5 these actualizations. (Dewey 1984: 130)

6 In this way, Dewey is recovering form and relation by situating them within perception,¹ albeit a
 7 perception that is situated spatio-temporally. There are two aspects of this quote from Dewey
 8 which warrant discussion in relation to Deleuze's philosophy. Firstly, the favouring of perception
 9 and secondly, the possibility of possibilities.

10 Bergson's duration and Dewey's transactions both focus on the individual, whereas to Deleuze
 11 individual thought is part of the event:

12 The immanent event is actualized in a state of things and of the lived that make it happen.
 13 The plane of immanence is itself actualized in an object and a subject to which it attributes
 14 itself. (Deleuze 1995: 31)

15 To Deleuze, events can only ever be actualized. This is because in an ontology which fully escapes
 16 dualism and dialectics, there can be no separate realm of possibilities. To have a world of
 17 possibilities requires predetermined forms which become real over time or are selected amongst.

18 As Smith (2009) notes, Bergson proposed that we wrongly assume that nonbeing exists before
 19 being, and in Deleuze's system, virtual differences thus replace 'possibilities' by providing
 20 something within the material world which might allow novel forms and ideas. Smith (2009: 34)
 21 explains that for Deleuze a 'virtual idea is not a condition of possible experience, but the genetic
 22 element of real experience.' In Deleuze's metaphysics the universe is in a state of continual
 23 becoming, with virtual causes being real yet actualised only as the world unfolds and develops.
 24 Deleuze and Guattari (1980) later use various devices for elucidating the virtual, the most powerful
 25 of which is the 'Body without Organs'.' They attempt to isolate the notion of 'body' from the sum
 26 of all organs, thus creating a concept which is both inseparable from material reality (in this case
 27 the organs) but is nonetheless a (virtual) entity. Another example they use is to illustrate this is
 28 'capital', which is inseparable from 'capitalism' and from 'commodity' but is nevertheless not equal
 29 to both.

30 In bringing this to bear on agency, consider how Deleuze, like Dewey, recovers the presence of
 31 forms and relations in the world, whilst denying ideal forms (as in Aristotle) or pre-conditioning
 32 by the transcendental mind (as in Kant). Deleuze's (1969) *transcendental empiricism* (which comes
 33 from a re-reading of Hume) suggests that:

34 Such an identity, produced by difference, is determined as 'repetition'.
 35 Repetition in the eternal return, therefore, consists in conceiving the same
 36 on the basis of the different. (Deleuze 1968: 51)

¹ We might also relate Dewey's 'operation' to Bhaskar's (2008 [1974]) 'mechanism' which is real whether actualized or not.

Deleuze's writing is rich and immersive and difficult to do justice to. Here the point is that the forms (identities) which make up sense and action are brought about through repetition, although of different contexts. Deleuze (1968: 2) gives an example of a festival: each instance of the festival is entirely different yet the identity of the festival is associated with multiple, unique instances. Through reading Hume, Deleuze claims, we are able to see that both identities and relations are external to each other. In a monist world which is in flux, our understandings are not related to some other realm of knowledge, nor are they developed in transaction with the real world. Ideas, understandings and actions are part of the patterning of events, inseparable ontologically from all other aspects of those events. Form and identity are therefore in the repeated, yet always different patterns of the world, constantly in a state of becoming.

From this flat ontology, we can start to approach a new account of agency. The reference to 'the eternal return' in the above quote invokes Deleuze's reading of Nietzsche (Deleuze 1983), in which the potential for change is upheld in the way that identity is 'affirmed' in each new instance. So, when he says that 'Nietzsche's secret is that *the eternal return is selective*' (Deleuze 1995: 88, italics in original), one might be forgiven for seeing this as equivalent to Emirbayer and Mische's (1998) notion that agency resides in the selective reproduction of patterns of thought and action. The subtle but important difference between the two positions is that, despite describing agency as a phenomenon, the locus of change in the ecological model is the rational judgement of teachers. In contrast, Deleuze's philosophy leads us to situate teachers as just one aspect of an unfolding, emergent event. The affirmation of virtual differences in (repeated yet different) events places human affirmation and affect on the same immanent plane as genetic causes and differences. Arguably, this goes further than Barad's focus on meaning and matter in that Deleuze's flat ontology seems more readily able to accommodate all types of patterns within classrooms, be they gestures, sounds, light, diagrams, bodies, narratives, facial expressions, models, equipment, etc. An event involves all of these in the emergence of matter/sense, without any pre-determination of what is intra-acting. In this way, considering agency as event differs from the iterative aspects of the ecological model; instead of seeing thought and action as patterned, thought and action are part of the patterning of the world more broadly.

Deleuze's philosophy also offers a different characterization of time, and therefore to the separation of iterative (historic) and projective (future) aspects of agency within the ecological model. In rejecting a realm of possibilities, the past and the future do not have independent existence:

There is no past or future independent of each synthesis in a living present... The future is left undetermined by the passing away of each present and the pure past founds the future as open. (Deleuze 1968: 93–4)

The significance of Deleuze's theorization of time and immanence for consideration of agency is that it highlights how intentionality is always in the present. Intentions might be oriented to futures which are envisaged in the near or long term, but the subjective actor is in the present.

the import of Deleuze's remark is not strictly that the subject is an actor, but rather that in the third synthesis, in the future, the actor is destined to be erased' (Williams 2011: 104)

Again, superficially this might not seem drastically different to Dewey's continuity of experience which sees each moment as being historically situated and conditioning the future. Likewise, Emirbayer and Mische (1998: 968) quote Mead (1932) in saying that 'Reality Exists in a present' and use this to recognize how the iterative and projective feed into moments of agency. The ecological model situates agency as to do with individuals operating in a moment of time. However, Deleuze's immanent philosophy is fundamentally *atemporal* (Badiou 2006). An event to Deleuze is not simply a moment in the procession of time; both past and future are unfolding together.

An account of agency that draws on Deleuze's concept of event would thus decentre humans, by providing an immanent account of how thought and action are part of the different and yet repeated patterns that emerge in the world. Whilst the ecological model describes agency as a phenomenon (as does Barad), human judgement remains at the centre. Similarly, selective reactivation of thought and action provides a basis for understanding how individual actions and social norms are co-constituted, but this situates human subjectivity at the centre of time itself, and agency as preconditioned by human concepts. Deleuze's account instead sees humans as *part of* the difference and repetition of patterns in the world, in a state of continual becoming. Rather than characterise agency as a phenomenon, centred on the human, agency can be related to immanent events within Deleuze's philosophy.

TEACHER AGENCY AND EVENT

As with the relation between individual and social in the relational model, or the role of rational decision making within the practical evaluative context of the ecological model, we must ask how teacher agency relates to events. Should we describe the event itself as agentive, or associate the label of agency with the intentions and actions of teachers, despite decentring the latter in the processes of emergence?

Through engaging with Deleuze's (1969) *The Logic of Sense*, Bowden (2014) suggests that agent intentionality is akin to 'willing the event', through processes of sense-making.

For Deleuze, 'willing the event', in the case of an action-event, will not consist in causing some particular, intended action, clearly conceived of prior to the act. It will rather consist in willing the 'sense-event' from which our determined actions are inseparable, *but where this sense-event also creates in us our willing*. (Bowden 2014: 237, italics in original)

This speaks to the atemporal in Deleuze's philosophy also: intention both conditions and is conditioned by an event. Yet, as Bowden argues, intentions are most readily evaluated through actions, and 'an action will count as being the action of a particular agent insofar as both this agent, and other agents are able to recognize him or her in that action' (Bowden 2014: 238). The contemporary association of the word *agency* with human intention and action is commensurate with the way that Deleuze (1969) describes 'quasi-causes'. I therefore suggest that it is more productive to situate teacher agency as *within* events, than to shift semantics towards agency being a characteristic of an event itself. In either case however, ontological distinctions between teachers and events are to be resisted in describing change within education.

To further develop how Deleuze's immanent philosophy, and concept of event, might advance understandings of teacher agency, we will return to the illustrative example used throughout this paper. A flat ontology means that we might be attentive to aspects of the situation without favouring intentional action or judgement of humans, and without pre-determined focus on the individual and social. Within the patterning of practice which saw worksheets stuck in books by teaching assistants, differences in socio-economics, roles, anxiety, pedagogy, expectations, aesthetics, finances, and technologies might all be identified as playing a role in the unfolding of a new practice. Deleuze's flat ontology is permissive in seeing the complex and subtle influences within an event, without *a priori* delineation. Deleuze's atemporal ontology focuses consideration upon what is present within a particular event. We are therefore able to describe the agency of the teacher, who first adopted the use of pre-printed self-adhesive labels, as both conditioned by and a quasi-cause of the event itself. Deleuze (1969) uses 'intensities' and 'sense' to describe how the event seeds intentions and actions, whilst those intentions and actions are also quasi-causes of the event. Later, Deleuze and Guattari (1980) use concepts such as 'affect' and 'desire' to similarly decentre agency, both of which are to be seen as qualities of actual events, rather than being situated within the human mind. The teacher in question is involved in sense-making within the emergent event; willing the event in a way that goes beyond the rational and cognitive, and is entangled with aesthetics and emotion, politics and pedagogy. Embodied sense and action meet the full complexity of the emergent moment, as the idea of using stickers emerges. We are not bound to the particular actions of a single teacher in delineating an event either; a change in practice of one teacher becomes a genetic cause of further unfolding as the practice spreads, given favourable conditions.

Consideration of the situated knowledge and actions of teachers finds parallels in feminist, new materialist theorizing (e.g. Haraway 1988).² It is also noteworthy that the ecological model of teacher agency situates both projective intentions and iterative beliefs and practices within emergent phenomenon. However, drawing on Deleuze's philosophy decentres the rational subject as the essential aspect of this, and therefore provides a more clearly emergent account of agency. To demonstrate the merit of this shift, consider two aspects of how it escapes the Enlightenment framing, in a way that the ecological model does not. Firstly, moving beyond the rational in human thought and action and, secondly, moving beyond the primacy of humans.

In relation to the first aspect, we earlier noted that the aesthetic and embodied quality of stickers in books, and the emotional content of relationships is not immediately surfaced if we equate agency with rational judgement, as in the ecological model. In extending the ecological model, Leijen et al. (2019) break down practical-evaluation into perception, then interpretation, and then agentive decision making. Arguably then, there is room for the irrational and tacit in perception, but it remains as a precursor to rational decision making. In a recent review, Enow (2023) highlights a lack of research into the tacit dimension of teaching, despite its importance being well established. Enow argues that expert teachers interweave decision-making, problem solving, memory, reasoning, judgement, perception, and intuition. Yet these are still cognitive processes; centred in humans. In contrast, Deleuze and Guattari's (1980) concepts of affect, desire, and

² Haraway moves beyond 'post-human' framings in later work though, decentring humans as within the 'humus' or 'compost' of the world (Haraway 2016).

intensity point to the event itself, within which agency is both emergent and a quasi-cause. Reconsider in our illustrative example the satisfaction of a clean, well-aligned sticker in a book, opposed to the wrinkles and curled edges of a glued worksheet. An aesthetic preference for this has to do with a teacher's history and the school culture, but to say that the pathway by which these influence an event is through the teacher's decision-making, is to ignore the smoothness and sound adhesion of the stickers themselves. Drawing on Deleuze and Guattari, we can say that affect is not a feature of cognition but is within the event itself. In this case, stickers and glue and bodies and emotions and culture interplay within an aesthetic preference. Telling the story of rational human thought and action, is only telling part of the story.

Whilst the above example of aesthetic preference unsettles the rational character of agency, the second aspect of merit, in considering agency through Deleuzian event, is that the rest of the story can be told. That is, the story of other aspects of the event, which are in flux both with and without humans. Indeed, it is worth avoiding simple divisions of human and non-human in this telling. For example, pre-populated stickers might be helpful in differentiating activities for individual students, or have a lower environmental impact, compared to glued worksheets. Whilst these considerations may be immanent influences in the teacher deciding to change practice, they may equally be features of the situation not yet rationalized. Without a limiting focus on human judgement, the unfolding event can be seen more fully. Whilst patterns of teacher thought and action are important, so too are the myriad patterns of matter and meaning which come together in an event. This might involve stickers and printers and relationships and notions of inclusion and all the tacit differences in an event in becoming. A focus on Deleuzian event, underpinned by a flat ontology, opens out understanding of how change takes place in educational settings, and what is involved.

Having laid out an immanent philosophy, it would now be remiss to claim the existence of possibilities for how a changed understanding of teacher agency might unfold. I will instead outline two broad hopes. Firstly, that decentring teachers provides educators and policymakers with a broader view of what is involved in positive change in education. Characterizing agency as within events shows that it is not enough to simply intend change. Teachers' projected intentions are immanent, and what counts is not the future possibilities imagined, but how intentions condition actions within the unfolding event. We might extrapolate from this the insight that whilst beliefs and intentions are important, what counts is how these are enacted. For example, an immanent ontology suggests that a teacher wishing to tackle inequality, racism, or climate change in their classroom must be attentive to this in how each moment unfolds. This goes beyond the planning of classroom activities towards rationally considered outcomes, it recognizes the importance of pedagogies and practices, and the nuance of action within events. As Biesta (2007) argues, the means and ends of education are internally related.

By considering agency as just one potential quasi-cause within Deleuzian events however, we might recognize that teachers are only a part of the processes and patterning of change within education. Such recognition takes us beyond the limits of seeing agency as about the knowledge and skills of teachers, even when those are considered individually and within cultures and material contexts. A broader and more open understanding of how change unfolds, might reduce the expectation that teachers and leaders can improve education through rational judgment

alone. Enow (2023) notes the tragedy of the tacit dimensions of teaching not being better understood, impacting attrition of novice teachers and societal attitudes toward teaching. I suggest that highlighting the affective and tacit within the unfolding of events might better support understanding the complexities of teaching, and the largely unrecognized basis on which teachers navigate the continual becoming of education. We might furthermore recognise that educational change cannot come about through focus on teachers alone.

The second broad hope for situating agency as within events, is that it becomes the genetic cause of a research agenda which is more open to the nuanced, interwoven influences on agency. A potential issue with such a permissive account of what is involved in agentic change, is that it provides little guidance on what to look for in a situation. A great deal has been written on the ways in which Deleuze's philosophy demands new ways of considering empirical research (see, for example, Coleman and Ringrose 2013; St. Pierre (2019)). Suffice to say here that the positionality of the researcher as within the events of research must be recognised. Nevertheless, this paper has highlighted the limitations of settling on pre-determined aspects of change, whether a dialectic of individual and social, or the emergence of rational judgement. Instead, researchers, like educators and policymakers, should be open to all aspects of the complex and emergent patterns within classrooms, schools and communities. My hope is that new understandings of research and practice unfold, from the clear ontological basis provided by situating teacher agency within immanent events.

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- 9