

# **Navigating the Social Landscape of Creative Idea Evaluation**

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I, Velvetina Siu Ching Lim, 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 work.

## **Abstract**

My thesis examines two topics: social networks and creative idea evaluation.

In Chapter 2, we investigate how an individual's *tertius iungens* brokerage orientation may affect the individual's novelty recognition ability. Through a series of field surveys and experiments, we find that having a high *tertius iungens* brokerage orientation positively enhances novelty recognition ability. This effect is found to be positively moderated when an individual has a high learning orientation.

In Chapter 3, we investigate what enables the formation of dyadic idea and advice meta-perceptions – i.e. perceiving whether other individuals rely on the perceiver for ideas and advice. Through two studies, we find that a higher sense of power leads to perceivers developing false idea and advice meta-perceptions, such that they perceive other individuals as relying on them for ideas and advice. We also rule out the perceiver's reliance on the reciprocity heuristic to form their relationship meta-perception, and propose an alternative cognitive pathway. In a four-wave study on student advice relationships, we replicate the main effect. We test for consequences, and find that having false advice meta-perceptions leads to the perceiver seeking advice from other individuals they hold the false meta-perceptions about.

In Chapter 4, we examine the interpersonal consequences in evaluating creative ideas in front of others. We hypothesize that failing to recognize creative ideas in front of others is likely to lead to lower trust, relative to when individuals recognize creative ideas. In a pilot survey, we establish the general phenomenon that being perceived as someone who tends to recognize creative ideas explicitly is associated with being trusted. In three subsequent experiments, we test and find that failing to recognize ideas in front of others leads others to

lower trust. Further, this effect is explained by the perceiver attributing lower warmth and competence to the evaluator.

## **Impact Statement**

How do our network behaviors affect the way we identify creative ideas? What factors predict the way we navigate our idea and advice relationships? What are the consequences in identifying creative ideas in front of others at work? In exploring these questions, my thesis advances theory for academic research on social networks, interpersonal perception, and creative idea evaluation. These findings also have bearing for practitioners in understanding how social processes may affect and be affected by the process of evaluating creative ideas, and determining how to best structure the social interactions involved.

Within academia, I extend current theories on social networks and creativity to understand how social networks are intertwined with the creative evaluation process. The questions I explore in this dissertation serve to demonstrate how network perceptions and actions are intertwined with creative evaluation processes, and prompts recommendations for future research in this nascent domain. In addition, I flip the tables by considering creative idea evaluation as an independent variable, and serve to provide new perspectives on considering the consequences of creative processes. In sum, the research questions here aim to break the frontiers of research on social networks and creativity, and seek to introduce new ways of thinking about these two research topics.

Beyond academia, this dissertation applies to practitioners in overcoming the separate but related challenges of a) navigating social relationships, and b) implementing creative ideas successfully. The questions I explore may have implications for determining how managers in creative work may strategically approach how they handle workplace relationships in order to benefit the way they recognize creative ideas, and vice versa. The fourth chapter for instance, reveal detrimental consequences faced by the manager when failing to recognize creativity, an insight that could be useful to motivate managers into trying harder to overcome their biases against novelty.

## **Preface**

This first paper in this dissertation (Chapter 2) is based on work conducted with my primary advisor Dr. Blaine Landis. I independently identified the research question, designed the research studies involved, collected, analyzed, and theorized around the data as part of my PhD upgrade submission. I contributed equally to the theorizing and writing of this paper with Dr. Landis. The second paper (Chapter 3) is based on work conducted with Dr. Blaine Landis, Dr. Clarissa Cortland, and Dr. Robert Krause. I designed, collected and analyzed data for Study 1, analyzed data in Study 2, and analyzed the data in Study 3. For Study 2, Dr. Landis supported with the data collection. For Study 3, Dr. Cortland supported with the data collection and Dr. Krause supported with the data analysis. Dr. Landis and I then worked together to theorize and write the paper. The final paper in my dissertation (Chapter 4) is based on work conducted with my secondary advisor, Dr Verena Krause, and Dr. Joshua H. Katz. I independently identified the research question, designed the research studies involved, and collected, and analyzed the data. I contributed equally to the theorizing and writing of the paper with Dr. Krause and Dr. Katz. I will adopt the collective “we” in the three chapters. The studies reported in this dissertation were approved by UCL’s research ethics board: [Chapter 2: #16951/002], [Chapter 3: #16951/004 and #5140/007], and UCL’s School of Management research ethics board: [Chapter 4: UCL-SOM-2023-013].

## Acknowledgements

*Goose: "It's time for the big one."*

*Iceman: "You up for this one, Maverick?"*

*Maverick: "Just a walk in the park, Kazansky."*

*Top Gun (1986)*

I dedicate this dissertation to the following people, who made this PhD process (which feels like flying a hypersonic aircraft) seem like a walk in the park.

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Last but not least, I dedicate this to my pack - Dr. Gordon R. T. Wright, and Dougal T. M. Wright. To my partner in crime: Thank you Gordon for being my support bubble. Having nutritious conversations in our daily walks has been a highlight of these years, and your emotional support lifts me up when I doubt myself. There is nobody else I could giggle about statistical problems and interpersonal perception theories with! May we continue to have Taco Tuesdays, Roast Chicken Saturdays, and F1 weekends as our respite in busy times. To my little man: Thank you Dougal for putting up with me when I try to teach you tricks and make you do intellectual puzzles when I'm needing a break from work. I am grateful that you ensure I take regular breaks to smell the daisies and chase the squirrels. To my pack, may this be the start of a new dawn!

*Goose: "No. No, May, this is not a good idea."*

*Maverick: "Sorry, Goose, but it's time to buzz the tower."*

*Top Gun, 1986*



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# **CHAPTER 1**

## **Introduction**

This thesis examines two research topics: social networks and creative idea evaluation. Specifically, Chapter 2 investigates how networking behaviors enhance the recognition of novel ideas, Chapter 3 examines how power motivates false meta-perceptions of incoming advice ties, and Chapter 4 examines the interpersonal consequences of failing to recognize creative ideas.

The evaluation of creative ideas is a stage in the creative process that broadly constitutes the assessment of an idea's novelty and usefulness – (Amabile, 1982; M. D. Mumford et al., 2002; Zhou et al., 2019). This stage has been theorized as the intermediate step between the generation of ideas and the implementation of ideas (Perry-Smith & Mannucci, 2017; Zhou et al., 2019), but can also be thought of as an iterative stage that occurs before each major decision-point triggering an idea's development along an idea journey (Basadur, 1995). In the last decade, research on creative idea evaluation has flourished and has been spotlighted as a stage for organizations and researchers to focus on, because of the inherent challenges in evaluating ideas successfully (Mueller & Yin, 2021; Rietzschel et al., 2019; Zhou et al., 2019).

The central takeaway from creative idea evaluation research focuses on the paradoxical nature of individuals having the desire for but also an aversion to creative ideas (Mueller et al., 2012, 2014, 2018). Research documents this paradox stemming from inherent biases that individuals have against novelty – the defining feature of creativity (Litchfield et al., 2015). Accordingly, frameworks have sought to show that these biases can be cognitively driven by the characteristics of the idea (i.e. novelty), and or socially driven by the characteristics of the creator, the evaluator, and the environment (Mueller & Yin, 2021; Zhou

et al., 2019). Despite the implied undertone that creative idea evaluation is inherently reliant on the social landscape it is situated in and the variety of stakeholders involved (Berg, 2016, p. 201; Harrison et al., 2023, p. 202; Mueller et al., 2018), there is little research focusing on how the evaluator navigates these social experiences while they serve as gatekeepers of creative ideas (Csikszentmihalyi, 1996).

In Chapter 2, I thus examine how engaging in networking behaviors may serve as a way for evaluators to enhance their novelty recognition ability. Specifically, I identify how evaluators with the tendency to engage in *tertius iungens*, a type of brokerage behavior geared at facilitating new ways of coordination between others (Obstfeld, 2005), serves to enhance the evaluators' ability to distinguish novel ideas from conventional ones. The main idea is that *tertius iungens* brokerage requires evaluators to determine how other parties in their networks may be connected, by matching how these parties can fulfil each other's needs. Determining this requires evaluators to gather information about others' needs and preferences. As a byproduct, this information they acquire about others can be transposed to novelty recognition tasks, thus making them more well versed in broadly understanding others' novelty preferences. I further identify that individuals with a predisposition towards learning (Van de Walle, 1997), are likely to gain and assimilate social information acquired to a greater extent, thus finetuning their novelty recognition abilities.

Using a time lagged, multi-source survey, I first establish that creative managers with a high *tertius iungens* brokerage orientation are perceived by their supervisors as being exceptional in recognizing novelty. Further, this effect is positively moderated by creative managers' learning orientation. Using two idea evaluation experiments, I rule out alternative impression management explanations, and demonstrate that individuals with a high *tertius iungens* brokerage orientation are better at distinguishing novel product ideas from conventional product ideas. Thus, this chapter documents how the way individuals navigate

their social networks can serve to enhance the way they recognize novelty, and also identifies an individual difference – learning orientation – as a potential amplifier of this relationship. These findings serve to reveal that the networking experiences of the evaluator can affect their ability to recognize novelty, by helping to finetune their knowledge of what others are likely to prefer.

In Chapter 3, I delve deeper into the psychology of navigating advice relationships – a type of instrumental relationship (Lincoln & Miller, 1979) important to facilitating innovation. Advice networks are critical for accessing non-redundant information and for gaining resources to transform ideas into innovations (Baer, 2010; Cangialosi et al., 2021; Gong et al., 2020; Y. Li et al., 2018). Specifically, I examine how the psychological experience of feeling powerful (Anderson et al., 2012) leads an individual to form false advice meta-perceptions (Byron & Landis, 2020) – that is, the illusion of perceiving others in their network as relying on the individual for advice, more than they really do. I also consider three possible downstream consequences from developing these false advice meta-perceptions.

Using a chatroom interaction study of brainstorming triads, I establish that people with a higher generalized sense of power, measured prior to a brainstorming chatroom session, are more likely to falsely perceive others in their team as appreciating their ideas shared, more than they really do. Next, using a cross-sectional network study of advice seeking in student project teams, I find that students who feel powerful relative to their teammates are more likely to falsely believe their teammates as coming to them for advice when they do not. In a four-wave network study of a student cohort, we replicate these findings and test for downstream consequences over time. We account for endogenous influence processes using a stochastic actor-oriented modelling approach, and find that feeling powerful causally leads individuals to falsely perceive other individuals coming to

them for advice when they do not. Of the three potential consequences examined in tandem, we find that developing false advice meta-perceptions leads these individuals to seek advice from those whom they perceive as reliant on themselves for advice. Our findings serve to reveal how feeling powerful may prompt individuals to falsely perceive other individuals as relying on them for ideas and advice. Contrary to existing studies assuming that inaccuracies are detrimental, we demonstrate how false advice meta-perceptions can be a blessing in disguise, as they are likely to seek advice from those who are not connected to them.

In my last chapter, I demonstrate a social consequence that evaluators face when they fail to recognize creative ideas in front of others (Chapter 4). While it is well established that individuals fail to recognize creative ideas because they face biases against novelty (Mueller & Yin, 2021; Rietzschel et al., 2019; Zhou et al., 2019), we remain in the dark as to the downstream consequences in failing to do so. Focusing on evaluators in decision-making roles, an organizational role most associated with the evaluation of creative ideas at work (Mueller et al., 2018), I propose that when decision-makers fail to recognize creative ideas in feedback interactions, they are likely to lose trust from employees who are privy to observing these interactions at work. This is because the act of evaluation serves as a social cue that enables employees to form interpersonal judgments about a decision-maker's competence and warmth (Cuddy et al., 2008), two broad interpersonal dimensions that are important for the formation of trust.

Using a cross-sectional field survey, I first establish that managers who fail to recognize creativity are trusted less by employees. In three scenario experiments, I then show that the core component of idea evaluation – creative idea labelling – serves as an integral social cue for perceivers to form trust in evaluators or not. Based on this essential social cue, perceivers form interpersonal judgments of a decision-maker's warmth and competence, two broad types of interpersonal perceptions which in turn, relate to trust. We find that failing to



recognize creativity in the presence of others leads to low levels of trust, relative to the recognition of creative ideas. Further, this effect is found to be moderated by the idea's creativity, such that this effect is amplified when the idea evaluated is creative, but disappears when the idea evaluated is conventional. Perceivers' judgments of the decision-maker's competence and warmth also serve as meaningfully distinct mediation mechanisms, such that as the decision-maker fails to recognize a creative idea, they are perceived to have lower competence and warmth as compared to when they do recognize a creative idea. These findings serve to reveal that evaluators may experience interpersonal consequences based on their performance in recognizing creative ideas. Failing to recognize creative ideas is not only detrimental to facilitating innovation efforts, but also directly detrimental to the evaluators themselves, and should thus be avoided at all costs.

In sum, my dissertation explores the social experiences of evaluators, to understand a) how networking behaviors may affect the way individuals evaluate ideas, b) how individuals navigate their idea and advice relationships – relationships that are useful to the evaluation process, and c) how failing to recognize creative ideas is likely to have interpersonal consequences for the evaluator. The findings of this dissertation will contribute to organizational theories on social networks and creative idea evaluation, and expand our understanding on the social experiences likely to be faced by evaluators at work.

## CHAPTER 2

### Spotting novelty:

#### Whether and when *tertius iungens* brokers recognize novel ideas

The importance of recognizing novel ideas—ideas that depart from the status quo—is well documented (Harvey & Berry, 2022; Mueller & Yin, 2021; Perry-Smith & Mannucci, 2019; Stein, 1953; Zhou et al., 2019). Research shows that novel scientific papers, especially those paired with familiar knowledge, attract a large number of citations (Uzzi et al., 2013) and have significant technological impact (Veugelers & Wang, 2019). While there have been clear indications that novel ideas are valuable and consequential, people often have opportunities to recognize novel ideas, but fail to do so (for reviews, see Mueller & Yin, 2021; Perry-Smith & Mannucci, 2019; Rietzschel et al., 2019; Zhou et al., 2019). Be it Pixar creators overlooking the novelty of early computer graphics animation technology (e.g., Catmull & Wallace, 2014; Mannucci, 2017) or managers overlooking the novelty of innovative human resource practices (Zhou et al., 2017), research on novelty recognition is replete with examples of how novel ideas are often undervalued.

How do people spot novel ideas? To date, social network research has focused on what leads people to *generate* creative ideas. In this stream of work, brokers benefit from diverse social connections that provide opportunities for exposure to diverse ideas and perspectives (Burt, 2005). The exposure that brokers have from diverse social connections often leads them to be better at generating creative ideas. For example, brokers tend to generate new ideas that are rated by others as valuable (Burt, 2004) and tend to produce novel patent combinations (Fleming et al., 2007). However, despite these insights into how brokers can *generate* new ideas (Burt, 2004; Fleming et al., 2007), a missing part of the picture is whether and when brokers can *recognize* whether an idea is novel to audiences it is created for. This represents a significant blind spot in our knowledge, considering the important role

brokers can play in the creative landscape at work (Baer et al., 2015) and the growing importance of being able to recognize which ideas are novel to different audiences.

Our aim in this paper is to address repeated calls for work to account for meaningful distinctions between the process of *generating* and *recognizing* ideas (Greenberg, 2021; Mueller & Yin, 2021; Perry-Smith & Mannucci, 2019). To better understand how brokers can detect novel ideas, we begin by distinguishing between the structural role of a broker in a social network and their behavioral tendencies (Kwon et al., 2020; Obstfeld et al., 2014). Although existing research highlights the many generative benefits of brokerage as a network position (e.g., Baer et al., 2015; Burt, 2004; Fleming et al., 2007), we propose that the behavioral side of brokering is especially relevant to understanding how people discern the novelty of ideas.

Our main idea is that *tertius iungens* brokers are likely to recognize what others perceive as novel. *Tertius iungens* (the third who joins) refers to fostering connections between others by “introducing disconnected individuals or facilitating new coordination between connected individuals” (Obstfeld, 2005, p. 102). We suggest that because *tertius iungens* brokers focus on connecting disparate individuals or fostering new collaborations, these efforts require them to gather information about others to understand what would enable new connections, thereby making them better equipped to identify what others think of as novel.

We further propose that some *tertius iungens* brokers, more than others, fare better in novelty recognition. We argue that when these individuals have a high learning orientation—they not only encounter information from interacting with others, but invest significant effort in learning. Having a high learning orientation means that individuals are motivated to learn for the sake of learning, have a willingness to endure challenges and difficulties when learning, and enjoy engaging in effortful tasks (DeShon & Gillespie, 2005; Dweck, 1986;

Dweck & Leggett, 1988). As such, when *tertius iungens* brokers have a higher learning orientation, we predict that their ability to recognize novel ideas is significantly enhanced.

We offer two important insights to the brokerage and idea evaluation literatures. First, brokers play an important role in the flow of ideas between people (Borgatti & Halgin, 2011), and although their generative capabilities have been well documented (Burt, 2004; Fleming et al., 2007), brokerage research neglects the process of how individuals identify novel ideas. We highlight how the behavioral side of brokering can help us understand how people recognize novel ideas across a range of domains. Prior work on the generation of ideas emphasizes the benefits of increased exposure to a wide spectrum of ideas that results from diverse social connections (Burt, 2004; Fleming et al., 2007). Our work builds from these findings in showing that a different form of brokering, one characterized by bringing people together, is helpful for recognizing novelty. Further, we suggest that *tertius iungens* brokers are better at novelty recognition when they are also learning oriented, because they are more motivated to absorb the information they encounter. Thus, our work contributes new insights to our understanding of whether and when brokers can recognize novel ideas, a missing part of the creativity process.

Second, while prior studies primarily emphasize how people can become open to novel ideas, they underemphasize the importance of learning about what various audiences may perceive as novel. For instance, prior studies demonstrate how evaluators develop biases against novelty by showing the affective responses that evaluators have to new ideas (Mueller et al., 2014; Mueller & Yin, 2021; Zhou et al., 2017). When ideas seem novel, evaluators experience uncertainty, which triggers negative responses (Mueller et al., 2012, 2014, 2018). Similarly, evaluator characteristics, such as regulatory focus or openness to experience, play a role in the extent to which people link novel ideas with positive mental associations, resulting in better appreciation for an idea (Sijbom et al., 2015; Silvia, 2008; Zhou et al.,

2017). However, changing one's reaction to the idea is only one part of the story. Our work provides a fresh look at how brokers learn about the preferences of various audiences and can therefore discern what is perceived as novel. In doing so, we offer a perspective based on how people become attuned to the preferences of different audiences, thereby answering recent calls for a better understanding of how novelty recognition depends on the interplay between idea evaluators and their social context (Zhou & Hoever, 2023).

## **Theoretical Background**

### **Distinguishing between Idea Generation and Recognition**

Recently, there have been repeated calls for researchers to pay close attention to distinctions between *generating* new ideas and *recognizing* them (Greenberg, 2021; Mueller & Yin, 2021; Perry-Smith & Mannucci, 2019). At first glance, these processes may seem similar, but research illustrates why the psychological processes for generating and recognizing novel ideas are distinct. For example, generating ideas is often an active process and focuses on the generator of the idea, whereas recognizing ideas can be an entirely passive process that is focused on the perceiver (Berg, 2016; Perry-Smith & Mannucci, 2019; Zhou et al., 2017). Coming up with novel ideas often requires a person to engage in divergent thinking to consider a wide range of possible outcomes, whereas recognizing novel ideas involves a process of convergent thinking to select what is newest or least familiar from a set of existing ideas (Cropley, 2006; Guilford, 1950; Rietzschel et al., 2010, 2014). Because idea generation and idea recognition rely on different psychological processes, it is important to extend our understanding of brokerage beyond what we have learned from studies of

brokerage as a network position and the benefits of exposure to idea diversity (e.g., Burt, 2005; Fleming et al., 2007).

### **Recognizing an Idea's Novelty**

Novelty is defined as “a change from current practice or the status quo” (Amabile, 1988; Mueller & Yin, 2021, p. 269), and is often regarded as the defining feature of creativity (Diedrich et al., 2015; Litchfield et al., 2015). To determine what constitutes a deviation from the status quo, evaluators rely on the norms of the social context in which an idea emerges (Amabile, 1982; Amabile et al., 1996; Csikszentmihalyi, 1996; Guilford, 1950). The novelty of an idea is evaluated in terms of the normative standards of an audience (Zhou et al., 2017), and some contexts value novelty more than others (e.g., circus acts; Berg, 2016). For this reason, it is especially important for evaluators to recognize what is novel in the eyes of a known or imagined audience. The evaluator's perceptions affect important decisions about whether the idea should be developed and shared with others (Perry-Smith & Mannucci, 2017). As Zhou and colleagues (2017) observed, the act of “spotting novelty in an idea is the crucial starting point in the long process of putting new ideas generated into good use...” (p. 180).

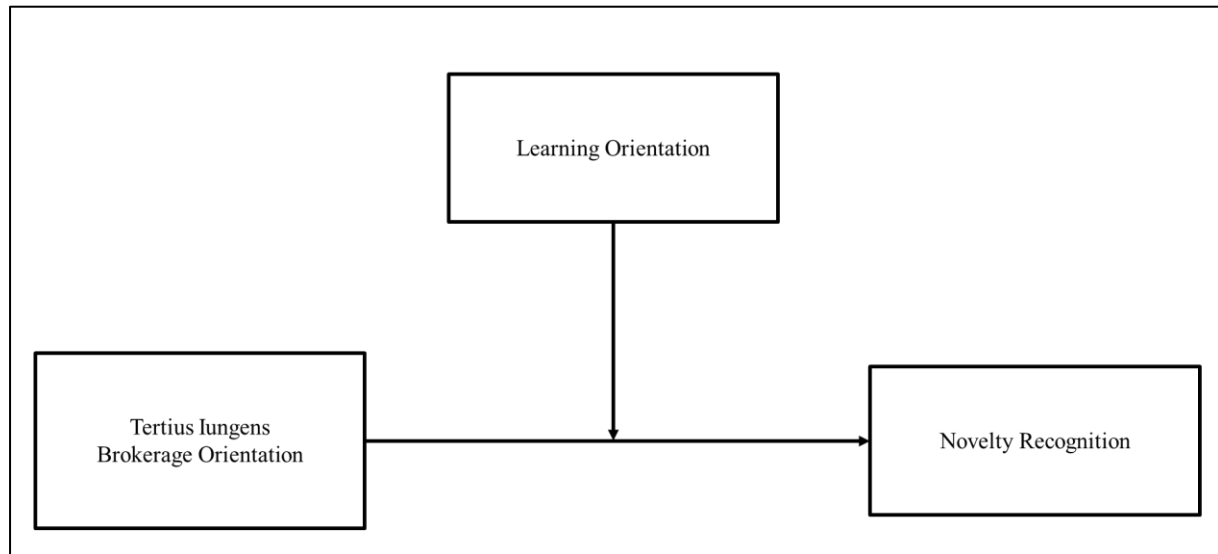
However, a paradoxical tension often observed in creativity and innovation research is that novel ideas are often rejected by the very decision-makers who desire them (Blair & Mumford, 2007; Mueller & Yin, 2021; Perry-Smith & Mannucci, 2017; Zhou et al., 2019). The bias against novelty stems from many sources (Zhou et al., 2019), including the characteristics of the idea (e.g., how the idea is framed, Falchetti, Cattani, & Ferriani, 2022), the creator (e.g., creator gender, Proudfoot et al., 2015), the context (e.g., organizational hierarchy, Keum & See, 2017), and the person evaluating the idea (e.g., decision-making roles, Berg, 2016; Mueller et al., 2018). The key reason underlying the bias against novelty is that individuals are unable to determine if ideas that depart from the status quo are likely to

be accepted by the audiences for whom they are created. This triggers feelings of uncertainty towards the idea itself, which actually reduces the perceived creativity ratings of the idea (Mueller et al., 2012, 2014, 2018). As a result, a novel idea may be perceived as being no different from a conventional idea.

Despite understanding that recognizing novelty is challenging because of our inability to predict the novelty preferences of potential audiences, the interventions proposed to overcome the bias against novelty do not address the limitation in not knowing what others prefer. Rather, proposed interventions focus more on helping the evaluator to reduce the resulting uncertainty felt in response to an idea, such as changing the way ideas are pitched (Falchetti et al., 2022; Haselhuhn et al., 2022; Lu et al., 2019), or changing the evaluator's thoughts in ways to induce a greater tolerance of uncertainty (Stojić, Schulz, Analytis, & Speekenbrink, 2020; Zhou, Wu, & Wang, 2022). While these approaches can be effective in getting ideas to be liked by evaluators, it still only tells one part of the story. A missing piece to the novelty recognition puzzle concerns how people come to appreciate the value of an idea's novelty for a given audience.

Our model is shown in Figure 2.1. We suggest that *tertius iungens* brokers are likely to learn about others in the process of figuring out which connections might be successful, and in doing so, they learn about what different parties might perceive as novel. However, not all *tertius iungens* brokers are equally likely to absorb the information they encounter. Thus, we consider learning orientation as a moderator of the relationship between *tertius iungens* brokerage and novelty recognition, such that when *tertius iungens* brokers have a high learning orientation, they invest greater effort in learning about others and therefore have greater novelty recognition.

**Figure 2.1**  
*Theoretical Model*



### **How Does Tertius Iungens Lead to Novelty Recognition?**

Tertius iungens is described as a strategic orientation, which “refers to the preferred means for approaching problems in a social context” (Obstfeld, 2005, p. 104).

Conceptualized as a type of behavioral tendency between a general trait and a specific attitude, this individual difference concerns behaviors aimed at facilitating new connections or collaborations with others. Tertius iungens brokerage (“third who joins”) is often contrasted with tertius gaudens brokerage in which individuals actively keep others separate or act as a go-between among others without attempting to bring them together (Grosser et al., 2019; Halevy et al., 2019, 2020; Obstfeld, 2005; Soda et al., 2018). Individuals can engage in different types of brokering over time (Lingo & O’Mahony, 2010; Quintane & Carnabuci, 2016), but tend to have individual preferences for using specific types of brokerage relative to others (Soda et al., 2018).

Engaging in tertius iungens brokering involves facilitating new connections or new collaborations between others (Obstfeld, 2005). To do so, these brokers need an awareness of what other parties need, to enable these connections or collaborations to occur. Because attempts at coordinating or facilitating new connections or collaborations for irrelevant



reasons could be awkward, individuals with an orientation toward *tertius iungens* brokering are likely to experience the challenge of needing to know how to enable these social interactions. Thus, a key part of this process involves understanding what others think might be new or important.

In social interactions, *tertius iungens* brokers are not passive observers. These brokers take on an active role in figuring out what would make for a successful connection or what would constitute as common ground between different parties (Obstfeld, 2005). This process of facilitating and coordinating different people is one where *tertius iungens* brokers, more than those less characterized by this strategic orientation, have an opportunity to learn how people respond to different ideas, suggestions, and views that may arise in the course of social interaction. This process of observational learning is fertile ground for *tertius iungens* brokers to gain awareness of what different parties would perceive as novel. For example, in analyses of collaborations in Hungarian film productions (Juhász et al., 2020), individuals in the core network with a *tertius iungens* orientation were more likely to broker collaborations in their network between periphery ties and core ties to create award-winning films. To do so, *tertius iungens* brokers likely understood the needs of both parties, which would have involved an effortful process of learning what those needs were. Similarly, in an ethnography of Nashville music producers (Lingo & O'Mahony, 2010), producers at the resource-gathering stage developed an understanding of what the heads of record labels perceived as creative, which enabled them to orchestrate meetings. Prior to setting up these meetings, producers who engaged in *tertius iungens* actively sought to understand the needs of the record labels, which allowed them to pitch their artists in ways that that record labels would see them as novel enough to be commercially successful. Thus, we propose that *tertius iungens* brokers are likely to be better at recognizing novel ideas.

*Hypothesis 1: Tertius iungens brokerage orientation is positively related to novelty recognition.*

## **How Learning Orientation Amplifies the Effect of Tertius Iungens on Novelty**

### **Recognition**

Tertius iungens brokerage may predict novelty recognition, but people are likely to vary in the extent to which they attempt to understand and learn the information they encounter. We propose that an individual's learning orientation may impact the extent to which they actually absorb the information they come across. Individuals who are learning oriented "strive to comprehend new things and increase their level of competence in a given activity" (DeRue & Wellman, 2009, p. 862). Although learning orientation was initially studied in the context of educational settings to understand how students' goals may affect achievement (Dweck, 1986; Dweck & Elliot, 1983), organizational researchers have investigated this construct to understand how the tendency to learn may predict performance outcomes at the individual, team, and organizational levels (Chadwick & Raver, 2015; DeRue & Wellman, 2009; Farr et al., 1993). People with a higher learning orientation are likely to acquire new skills (Kozlowski et al., 2001), obtain higher levels of mentoring support (Godshalk & Sosik, 2003), and can even offset the extent to which developmental challenges hinder leadership development (DeRue & Wellman, 2009).

With a desire to demonstrate mastery, individuals may become more driven to gain and assimilate information to infer whether external audiences are likely to perceive ideas as novel. Having a learning orientation is proximally associated with engaging in actual learning behaviors such as using deep-level strategies to assimilate knowledge (Simons et al., 2004), suggesting that people with a high learning orientation are likely to actively use information they have about others to determine the extent to which external audiences perceive ideas as novel. Additionally, individuals tend to perform better in knowledge acquisition tasks when a

learning goal is primed (Chen & Latham, 2014). A further way in which having a learning orientation can affect the way individuals assimilate others novelty preferences is by leading individuals to perceive their own abilities as something they can change. Individuals form their own implicit theories used to assess an idea (Sternberg, 1985), and those with a higher learning orientation are likely to be motivated to consider how their own theories might need to be revised or updated as they come across new information. This notion is supported by recent work showing that a higher learning orientation motivates individuals to search for new knowledge and update their “knowledge of uncharted territories” (Miron-Spektor et al., 2022, p. 312). Thus, as tertius iungens brokers encounter and evaluate new ideas, their learning orientation is likely to play an important role in how they change the way they evaluate new ideas.

*Hypothesis 2: The relationship between tertius iungens brokerage orientation and novelty recognition is moderated by the individual’s learning orientation, such that the effect of tertius iungens brokerage orientation on novelty recognition will be stronger when individuals have a high learning orientation relative to when they have a low learning orientation.*

## **Overview of Studies**

We tested these ideas in four studies. In a sample of professional creatives in India, we first sought to establish whether individuals with a high tertius iungens orientation tended to be rated by their managers as having higher novelty recognition (Study 1). In the second study, we extended these results to the idea level by asking creative managers in the US to rate the novelty of US product patent ideas for a consumer audience and comparing their scores to the novelty ratings of an external consumer audience. In the third study, we sought to replicate and extend this second study by asking a sample of people from the general US population to rate the novelty of crowdfunding product ideas and comparing their novelty

ratings to those of an external audience. In our fourth study, we returned to a field setting to replicate the link between *tertius iungens* and novelty recognition in a multi-source, time-lagged study of creative professionals in India.

## **Study 1: Method**

### **Participants and Procedure**

We recruited 113 full-time working professional dyads ( $N = 226$ ) from a research panel in India who had expressed an interest in volunteering for academic research for pay. To qualify for the study, each dyad (consisting of an employee and a manager) had to be proficient in English and currently working on creative projects together in their organization. Employees were 69% male, with an average age of 31.13 years ( $SD = 3.20$ ) and department tenure of 3.41 years ( $SD = 1.54$ ). Managers were 73% male, with an average age of 36.54 years ( $SD = 3.58$ ) and department tenure of 4.94 years ( $SD = 2.16$  years). The majority of dyads were situated in the advertising (28.32%) and IT (25.66 %) industries where they worked in marketing (37.13%), IT (16.81%), R&D (14.15%) and advertising (15.04%) departments, all of which require individuals to excel at evaluating novel ideas at work.

Manager and employee pairs were recruited together for a study concerning individual differences and their views towards each other at work. We emphasized in the survey that all responses were anonymous and confidential, and participants would not be able to see the other person's responses. For this study, employees completed survey measures about their brokerage orientations and demographic information, while the managers completed a measure about their employee's novelty recognition ability at work and demographic information<sup>1</sup>.

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<sup>1</sup> This survey was conducted as part of a larger study. The main variables of interest here are not used for other papers that use variables as part of this dataset.

## Measures

All measures were completed using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

### *Employee Tertius Iungens Brokerage Orientation*

Employees completed a 6-item measure developed by Obstfeld (2005;  $\alpha = .92$ ). Example items include, “I introduce people to each other who might have a common strategic work interest,” and “I see opportunities for collaboration between people.” The tertius iungens brokerage orientation scale has demonstrated strong psychometric properties (Obstfeld, 2005) and construct validity vis-à-vis other brokerage orientation measures (Grosser et al., 2019).

### *Outcome: Perceived Employee Novelty Recognition Ability*

To capture an individuals’ ability to recognize novel ideas in a field setting, we sought to use managerial performance ratings of the employee’s novelty recognition ability. The manager of each employee completed a three-item measure concerning the extent to which their employee was exceptional at recognizing novel ideas ( $\alpha = .84$ ). The three items were: “My employee is exceptional at identifying novel ideas,” “My employee is exceptional at identifying original ideas,” and “My employee is exceptional at identifying unique ideas.” Research shows that observers can identify the extent to which individuals are perceived to be creative (Kandler et al., 2016). Because the employees in this sample worked on creative projects with their supervisor in the past year, the managers were well positioned to have observed during a range of situations in which they could judge the extent to which their employee could identify what they perceived as novel ideas.

### *Control Variables: Mediation And Separation Brokerage Orientations*

To account for the possibility that our results are not due to a tertius iungens orientation, but other brokerage tendencies, we also measured brokerage tendencies that

reflect the tendency to keep people apart or be an intermediary between people who are not in direct contact (*tertius gaudens* behaviors). Employees completed the Disjunct Brokerage Orientation Scale (Grosser et al. 2019), which measures mediation ( $\alpha = .94$ ) and separation ( $\alpha = .94$ ) brokerage orientations using three items each. An example item for mediation orientation was, “I sometimes mediate interactions between coworkers that don’t get along,” and an example item for separation orientation was, “I prefer to keep some of my work contacts separate from one another.”

#### *Control Variables: Employee Demographics And Relationship Characteristics*

Perceptions of novelty recognition ability may be influenced by the employee’s characteristics, and the amount of time a manager had spent working with the employee. Thus, we also controlled for the employees’ age and gender, as well as the amount of time that the manager reported having worked with the employee.

### **Results**

The descriptive statistics and correlations among variables are shown in Table 2.1. We observed that *tertius iungens* orientation was highly correlated with mediation and separate brokerage orientations and assessed for potential multicollinearity by checking the variance inflation scores (VIF) when entering these three predictors into a regression model. If a predictor has a VIF score of more than 10, and or a tolerance value of less than .10, multicollinearity is deemed to have occurred and the predictor in question is inappropriate to include in a model. Results indicate that in entering *tertius iungens* orientation, mediation orientation, and separation orientation as predictors in a model, separation orientation had a VIF score of 14.02 and a tolerance score of .07, mediation had a VIF score of 11.26 and a tolerance score of .09, but *tertius iungens* orientation had a VIF score of 9.38 and a tolerance score of .11. These results suggest that including separation and mediation orientations as control predictors lead to multicollinearity issues, and likely to lead to poorer model fit. Thus,

we modified our analytic approach to enter employee tertius iungens orientation in the first model, and control for employee demographic and characteristics in the second model. In the interest of transparency, we also report results when entering mediation and separation orientations in the third model. As shown in Table 2.2, Model 2, employees with a higher tertius iungens orientation tended to be evaluated by their managers as being able to recognize novel ideas,  $b = .16$ ,  $SE = .06$ ,  $p = .009$ , 95% CI [.04, .29].

**Table 2.1**  
*Study 1: Descriptive Statistics: Means, SDs, and Correlations*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Mediation orientation	4.70	2.10						
2. Separation orientation	4.71	2.05	.95					
3. Employee age	31.13	3.20	.44	.42				
4. Employee gender (1 = female)	.31	.46	.06	.03	.03			
5. Employee-manager relationship duration	3.04	2.21	.22	.21	-.15	.06		
6. Tertius iungens orientation	5.00	1.58	.93	.94	.37	.05	.19	
7. Perceived novelty recognition	5.81	.96	.31	.29	.25	-.04	.06	.33

*Note.*  $N = 113$ . Correlations that have an absolute value greater than .18 are significant at  $p < .05$ .

**Table 2.2***Study 1: Regression Analyses Predicting Perceived Novelty Recognition*

	Model 1		Model 2		Model 3	
Perceived Novelty Recognition						
Predictor	<i>b</i>	s.e.	<i>b</i>	s.e.	<i>b</i>	s.e.
Intercept	5.81***	.09	5.85***	.10	5.86***	.11
Control variables						
Mediation orientation					.02	.14
Separation orientation					-.18	.16
Employee age			.05	.03	.06 <sup>†</sup>	.03
Employee gender			-.13	.03	-.14	.19
Employee-manager relationship duration			.02	.04	.02	.04
Tertius iungens orientation	.20***	.05	.16**	.06	.34*	.17
R <sup>2</sup>	.11		.13		.15	
<i>N</i>	113		113		113	

*Note.* *N* = 113 ratings in 113 dyads. Unstandardized coefficients and robust standard errors are reported.

<sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

## Discussion

Our survey findings provide initial support for Hypothesis 1 in demonstrating that individuals with a higher tendency to engage in tertius iungens brokerage are perceived as being better at recognizing novel ideas. However, the interpretation of this finding is limited by the correlational nature of this study, and does not show if tertius iungens brokers do indeed have the ability to recognize novel ideas. Because tertius iungens tends to be stable (see Soda et al., 2018, for relevant evidence), we adopted a quasi-experimental design in the next study where we measured tertius iungens and experimentally manipulated whether ideas were deemed high or low in novelty to an external audience, thereby allowing us to test whether individuals with high tertius iungens scores were better able to rate ideas as novel when they were deemed by an external audience as novel.



## Study 2: Method

### Participants and Procedure

We recruited an initial pool of 200 participants from Amazon's Mechanical Turk and paid \$2 USD. To be eligible, participants had to be in the United States, identify as working professionals in the creative industries, hold a supervisory role, and have at least a 99% approval rate. After removing cases that did not satisfy our attention and data quality checks, the final sample consisted of 185 participants ( $M_{\text{age}} = 39.83$ ,  $SD_{\text{age}} = 10.52$  years, 62% male).

Because *tertius iungens* brokerage orientation may be difficult to change via experimental manipulation, we followed best practice recommendations (Grant & Wall, 2009) and adopted a within-person quasi-experimental design where we measured *tertius iungens* brokerage orientation and manipulated the actual novelty and success of ideas that were presented to participants. Participants began by completing the brokerage orientation measures described below (Grosser et al., 2019; Obstfeld, 2005). In the next phase, we asked each participant to evaluate four product ideas in randomized order. To ensure that these ideas were not specific to any single context and could be evaluated by all participants in our sample of a general population, we selected four ideas based on consumer product patents in the United States that were adapted from research examining how accurately participants can forecast novelty and success (see Berg, 2016, for full details). Each product idea featured a short description about how it could be used and its design properties, along with an illustrated sketch. For example, one idea was an automatic bed maker, which worked by using rotating wheels to pull a duvet cover over the bed (Berg, 2016). To ensure that our participants were thinking of a target audience that would be accessible to everyone in the study, we asked participants to consider whether the product idea would be novel to the broader consumer market. Finally, participants indicated their demographic information.

Because success and novelty are often intertwined despite being different measures of an idea's value (Berg, 2016; Juhász et al., 2020; Mitteness et al., 2012; Shane & Venkataraman, 2000), it was important to control for whether the product idea was also likely to be successful. Thus, we selected product ideas that varied not only in terms of novelty but also in terms of success. Based on the mean scores derived from Berg's (2016) pretest findings regarding the actual novelty and success perceptions of each idea, we selected four ideas to represent each part of the novelty-success quadrant: high novelty and high success, low novelty and high success, high novelty and low success, and low novelty and low success. Including success in our research design thus enhanced experimental realism (as novelty and success are often intertwined) and allowed us to partial out and control for the possible effects of success on novelty ratings.

## **Measures**

All measures were completed using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

### *Tertius Iungens Brokerage Orientation*

Participants completed the same measure of tertius iungens as in Study 1 (Obstfeld 2005;  $\alpha = .83$ ).

### *Moderator Variable: Actual Novelty Of Ideas*

We created binary variables based on the mean scores derived from Berg's (2016) pretest findings regarding the actual novelty perceptions of each idea. High novelty ideas were coded as 1, whereas low novelty ideas were coded as 0. To support our theory that tertius iungens would positively relate to novelty recognition, we should expect to see an interaction effect between tertius iungens and actual idea novelty, such that individuals high in tertius iungens are more likely to assign higher ratings of novelty to highly novel ideas than ideas of low novelty. In other words, we should expect the slope representing the effect

of high tertius iungens to be steeper than the slope representing the effect of low tertius iungens on novelty recognition.

#### *Outcome: Novelty Perceptions*

Participants rated idea novelty using three items: “This product is novel,” “This product is original,” and “This product is unique” ( $\alpha$ s for each scale per idea range from .87-.93). These items are consistent with the definition of novelty referring to that which is novel, original, and unique recognized throughout the creativity literature (Mueller et al., 2012; 2014).

#### *Control Variables: Mediation And Separation Brokerage Orientations*

Employees completed the same measures for mediation ( $\alpha = .86$ ) and separation ( $\alpha = .81$ ) brokerage orientations as in Study 1.

#### *Control Variable: Actual Success Of Ideas*

Based on Berg’s (2016) pretest findings regarding the actual success perceptions of each idea, we coded high success ideas as 1 and low success ideas as 0. The actual success of ideas was included in our models to account for alternative explanations concerning success (as opposed to novelty).

#### *Control Variable: Structural Holes In The Ego Network*

Past work highlights the benefits of structural holes (missing connections between one’s direct contacts), so to control for whether these effects are merely due to brokerage as a structural position in the network (e.g., Burt, 2004; Fleming et al., 2007), we controlled for the extent to which the ego network featured structural holes. We adopted an ego network method (Borgatti et al., 2018) in which we asked participants to report up to 10 contacts they go to for advice at work. On the next page, participants saw a square matrix displaying the names that the participant provided. We then asked each participant to report whether each alter went to any other alter for advice. Using UCINET 6 (Borgatti et al., 2002), we

calculated the participant's effective network size to determine the frequency of structural holes in the participant's network. Effective network size is calculated as the number of non-redundant ties that an ego has after subtracting the average number of ties that alters possess with other alters (Everett & Borgatti, 2020).<sup>2</sup> Higher scores reflect a greater number of structural holes in the ego network.

### **Analytic Approach**

Participants rated four ideas in this within-person design, making observations (ratings) nested within participants. Intercept-only models showed that 20.8% of the variance could be attributed to differences between idea evaluators, indicating that multilevel models are appropriate. Following established work on novelty recognition (Zhou et al., 2017), we tested the link between *tertius iungens* and novelty recognition by examining the cross-level interaction between a person's *tertius iungens* orientation (a Level 2 variable) and ratings of novelty provided by an external sample (a Level 1 variable) on the participant's idea novelty ratings (the outcome variable). Here, support for our prediction would be obtained if *tertius iungens* would relate to higher novelty ratings for ideas deemed by the external sample as high in novelty. Our approach allows us to examine whether *tertius iungens* orientation predicts higher novelty ratings among ideas that are rated as novel (as opposed to low novelty) and avoids the methodological problems (Edwards, 2001; Johns, 1981) with using difference scores to assess accuracy (i.e., subtracting the audience rating from the participant's rating of novelty).

### **Results**

Descriptive statistics are shown in Table 2.3. We began by conducting a manipulation check to see if novel ideas received higher novelty ratings. These checks support the

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<sup>2</sup> The same pattern of results is observed if ego betweenness centrality (M. Everett & Borgatti, 2005; Freeman, 1982) or network constraint (Burt, 1995) are used as measures of structural holes instead.

effectiveness of the manipulations: Participants rated ideas in the high novelty condition ( $M = 5.32$ ,  $SD = 1.36$ ) as significantly more novel than in the low novelty condition ( $M = 4.40$ ,  $SD = 1.56$ ),  $t(738) = 8.54$ ,  $p < .001$ .

Hypothesis 1 predicted that individuals with a high tertius iungens orientation would demonstrate heightened recognition of others' preferences for novelty, such that when individuals with a higher tertius iungens orientation evaluated an idea deemed novel by an external source, they also tended to assign higher novelty ratings. As shown in Table 2.4, Model 2, there was a significant interaction between tertius iungens and actual idea novelty in predicting novelty perceptions,  $\gamma = 0.20$ ,  $SE = .09$ ,  $p = .036$ , 95% CI [.01, .38], controlling for the extent to which an idea was perceived as successful. To assess the form of this interaction, we plotted the simple slopes following the recommendations of Aiken and West (1991). As shown in Figure 2.2, individuals high in tertius iungens assigned higher ratings of novelty for the ideas that were highly novel. Thus, we found support for the hypothesized link between tertius iungens and novelty recognition.

**Table 2.3**  
*Study 2: Descriptive Statistics: Means, SDs, and Correlations*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Mediation orientation	4.76	1.35						
2. Separation orientation	4.42	1.40	.20					
3. Effective network size	1.34	1.74	.12	.22				
4. Idea Novelty	.50	.50	.00	.00	.00			
5. Idea Success	.50	.50	.00	.00	.00	.00		
6. Tertius iungens orientation	5.39	0.95	.56	-.07	.07	.00	.00	
7. Novelty perceptions	4.86	1.53	.05	-.04	.07	.30	-.19	.12

*Note.*  $N = 740$ . Correlations that have an absolute value greater than .08 are significant at  $p < .05$ .

**Table 2.4***Study 2: Multilevel Moderation Analyses Predicting Novelty Perceptions*

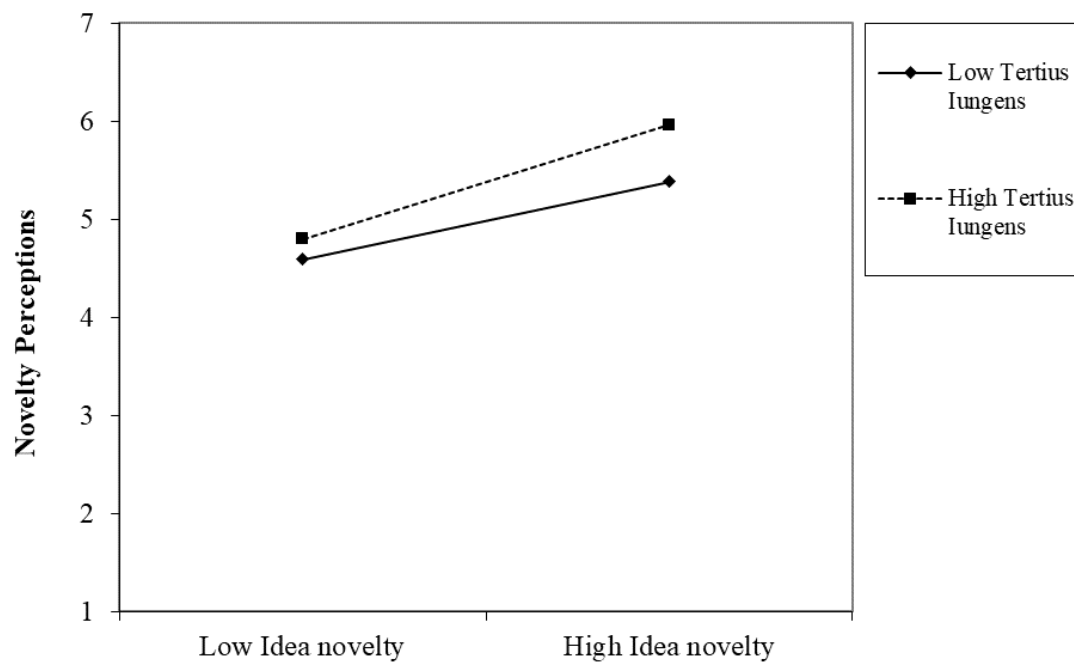
	Model 1		Model 2	
	Novelty Perceptions			
Predictor	<i>b</i>	s.e.	<i>b</i>	s.e.
Intercept	4.69***	.09	4.69***	.09
Control variables				
Mediation orientation			-.03	.06
Separation orientation			-.05	.05
Effective network size			.06	.04
Idea novelty	.92***	.09	.92***	.09
Idea success	-.59***	.09	-.59***	.09
Tertius iungens orientation	.10	.09	.11	.10
Idea novelty * Tertius iungens orientation	.20*	.09	.20*	.09
Log likelihood	-1272.47		-1271.03	
<i>N</i>	740		740	

*Note.* *N* = 740 ratings in 185 individuals. Unstandardized coefficients and robust standard errors are reported.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Figure 2.2**

*Study 2: Interaction between Tertius Iungens and Actual Idea Novelty in Predicting Novelty Perceptions*



## Discussion

These findings replicate and extend previous findings at the individual level, providing support for our main hypothesis that the higher the tertius iungens orientation, the more likely it is that individuals are able recognize novelty. This study offers further support for the idea that that a tertius iungens orientation plays an important role in how individuals perceive the novelty of ideas. However, it is possible that these effects are circumscribed to the four product patent ideas that we selected as stimuli for this study and may not generalize to other contexts. We therefore conducted Study 3 to examine this effect using a new set of stimuli—ideas from crowdfunding campaigns—to enhance the generalizability of these results.

## Study 3: Method

### Participants and Procedure

We recruited 450 participants from Amazon’s Mechanical Turk and paid each volunteer \$2 USD. These participants had to be located in the United States, were employed full-time, and have at least a 99% approval rate. After removing cases using the same attention and data quality checks as in the previous experiment, the final sample consisted of 433 participants ( $M_{age} = 41.40$  years,  $SD_{age} = 11.82$  years, 51% male).

We adopted a similar within-person quasi-experimental design (Grant & Wall, 2009) as in Study 1, except that new product ideas were used, and we sought to enhance the realism of the evaluation context by asking participants to take on the role as an investor. First, we selected 20 new product idea vignettes adapted from actual online crowdfunding campaigns on [www.kickstarter.com](http://www.kickstarter.com). These campaigns were based in the United States and were seeking funding in the range of \$1,000-\$10,000 USD. We chose crowdfunding product ideas because they were realistic products that would be accessible to all participants in our sample. Next, to collect ratings on the extent to which a broader external audience would deem these

product ideas as novel and successful, we asked a separate sample of 89 MTurk participants to rate each idea in terms of novelty and success, using the same measures as in Study 1. This pilot study was pre-registered at [https://osf.io/ydg65/?view\\_only=f66bb1f8dc9f4a5180aab034366c02bd](https://osf.io/ydg65/?view_only=f66bb1f8dc9f4a5180aab034366c02bd).

To assess the extent to which these ratings of novelty and success were in agreement, we computed average deviation indices using the mean scores of novelty and success ratings for each product (Zhou et al., 2017). The mean average deviation (AD) index was 1.42 and 1.73 for novelty and success ratings, respectively. Similarly, aggregation tests indicated adequate (moderate) agreement between raters for ratings of novelty ( $ICC_1 = .23$ ,  $ICC_2 = .96$ ) and success ( $ICC_1 = .11$ ,  $ICC_2 = .92$ ). These data indicate that adequate (moderate) agreement between raters was observed (LeBreton & Senter, 2008), so we combined ratings into single average scores for novelty and success. Based on the average novelty and success scores for each idea (see Table 2.5), we selected four ideas so that product ideas from each corner of the novelty-success quadrant were represented. Study 3 was pre-registered at [https://osf.io/f28wm/?view\\_only=eccd1e031db048819c768082246d1720](https://osf.io/f28wm/?view_only=eccd1e031db048819c768082246d1720). The hypotheses in Study 3's preregistration stemmed from a time when a further interest was in predicting creative success. We report only the findings pertaining to novelty recognition. We found no effects of brokerage structure or behaviors on perceptions of success.

**Table 2.5**  
*Study 3: Actual Idea Rank and Pretest Means of Ideas*

Correct Rank	Pretest Idea Novelty	Pretest Idea Success
1. Self-draining soap dish	4.34 (1.83)	4.63 (1.88)
2. Organic dry shampoo powder	3.77 (1.96)	3.75 (2.00)
3. Trigger point massage board	4.39 (1.69)	3.72 (1.89)
4. 3-in-1 baby cover	3.85 (1.76)	2.55 (1.85)

*Note.* Standard deviations are shown in parentheses.



## Measures

All measures were completed using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

### *Tertius Iungens Brokerage Orientation*

Participants completed the same measure of tertius iungens as in Study 1 (Obstfeld, 2005;  $\alpha = .88$ ) again using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

### *Moderator Variable: Actual Novelty Of Ideas*

We created a variable for the actual novelty of ideas. High novelty ideas were coded as 1 and low novelty ideas were coded as 0.

### *Outcome: Novelty Perceptions*

Participants completed the same 3-item measure for perceptions of novelty as in Study 2 ( $\alpha$ s for each measure per idea were all equal to or exceeded .94) using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

### *Control Variable: Mediation And Separation Brokerage Orientations*

Participants completed the same measures (Grosser et al., 2019) for mediation ( $\alpha = .86$ ) and separation ( $\alpha = .81$ ) as in Study 1.

### *Control Variable: Actual Success Of Ideas*

The actual success of ideas was included in our models as a variable where 1 and 0 indicated high and low idea success, respectively.

### *Control Variable: Structural Holes In The Ego Network*

Participants completed the same ego network measure as in Study 1. We computed the effective network size to capture the number of structural holes in the ego network (Everett & Borgatti, 2020).

## Analytic Approach

This study featured a within-person design where idea ratings were nested within individuals. Intercept-only models indicated that 27.7% of the variance was attributable to

differences between idea evaluators, indicating that multilevel modeling was appropriate to account for the nonindependence of observations in our data. We examined the cross-level interaction between *tertius iungens* at Level 2 and external ratings of idea novelty at Level 1 in predicting participants' ratings of novelty as the outcome.

## Results

Descriptive statistics for variables are shown in Table 2.6. A manipulation check supported the effectiveness of our product idea selections: Participants rated ideas in the high novelty condition ( $M = 4.87$ ,  $SD = 1.59$ ) as significantly more novel than ideas in the low novelty condition ( $M = 4.32$ ,  $SD = 1.69$ ),  $t(1730) = 6.99$ ,  $p < .001$ .

Our prediction in Hypothesis 1 was that the higher an individual's *tertius iungens* brokerage orientation, the more likely the individual would be to assign higher novelty scores to ideas that the external audience also deemed novel. As shown in Table 2.7, Model 2, we observed a significant interaction effect between *tertius iungens* and actual idea novelty in predicting novelty perception,  $\gamma = 0.12$ ,  $SE = .06$ ,  $p = .046$ , 95% CI [.00, .23], controlling for the extent to which ideas were perceived as successful. To examine the form of this interaction, the simple slopes are shown in Figure 2.3. As this figure shows, individuals high in *tertius iungens* assigned higher ratings of novelty for the ideas the independent sample of raters deemed highly novel. Thus, we found support for the relationship between *tertius iungens* and novelty recognition.

**Table 2.6***Study 3: Descriptive Statistics: Means, SDs, and Correlations*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Mediation orientation	4.33	1.53						
2. Separation orientation	4.46	1.41	.13					
3. Effective network size	.91	2.38	.11	.15				
4. Idea Novelty	.50	.50	.00	.00	-.00			
5. Idea Success	.50	.50	.00	.00	.00	.00		
6. Tertius iungens orientation	5.24	1.13	.59	-.00	.07	.00	.00	
7. Novelty perceptions	4.60	1.66	.09	.04	.04	.17	-.01	.07

*Note.*  $N = 1732$ . Correlations that have an absolute value greater than .06 are significant at  $p < .01$ .

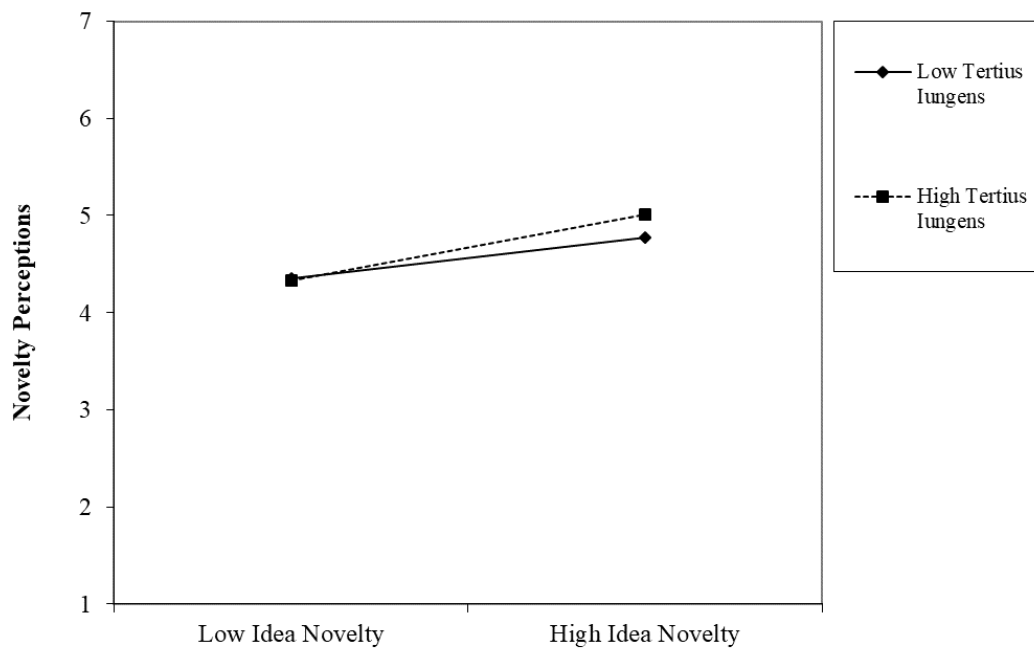
**Table 2.7***Study 3: Multilevel Moderation Analyses Predicting Novelty Perceptions*

	Model 1		Model 2	
	Novelty Perceptions			
Predictor	<i>b</i>	s.e.	<i>b</i>	s.e.
Intercept	4.35***	.07	4.35***	.07
Control variables				
Mediation orientation			.07	.04
Separation orientation			.03	.04
Effective network size			.02	.02
Idea novelty	.55***	.07	.55***	.07
Idea success	-.04	.07	-.04	.07
Tertius iungens orientation	.05	.06	-.01	.07
Idea novelty * Tertius iungens orientation	.12*	.06	.12*	.06
Log likelihood	-3217.12		-3214.53	
<i>N</i>	1732		1732	

*Note.*  $N = 1732$  ratings in 433 individuals. Unstandardized coefficients and robust standard errors are reported. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Figure 2.3**

*Study 3: Interaction between Tertius Iungens and Actual Idea Novelty in Predicting Novelty Perceptions*



## Discussion

The findings replicate and provide further support for our main hypothesis that tertius iungens orientation increases sensitivity to novelty among a new set of product ideas. These findings add confidence to the results we observed in Study 2 by establishing this effect using a new set of product ideas. Having established that tertius iungens heightens novelty recognition in two independent samples using varied product idea evaluations, we sought to return to the field setting to test for our moderation effect, learning orientation. Thus, in Study 4, we studied a sample of managers involved in creative work, such as advertising or research and development. In these professional settings, creative managers are required to identify either if their employees' ideas are novel enough to select for implementation. Managers involved in managing creative work are in important positions to influence the evaluation process, such as decisions about whether ideas are novel enough to pitch to others (Perry-Smith & Mannucci, 2017). In addition, because individuals in decision-making roles are

likely to experience the bias against novelty (Mueller et al., 2018), our next study involves testing our hypothesized relationships in a sample of creative managers with their supervisors providing ratings on their novelty recognition ability. This time, we also used a time-lagged approach to permit a direct causal test of this relationship in naturally occurring organizational environments with high ecological validity, while also allowing us to test for whether learning orientation will moderate the extent to which *tertius iungens* influences novelty recognition.

## **Study 4: Method**

### **Participants and Procedure**

We recruited working professionals from a research panel in India who had expressed an interest in volunteering for academic research. To qualify for the study, individuals had to be creative project managers who were proficient in English and whose supervisor had worked with them on a creative project. This latter requirement ensured that the supervisors of these creative managers had adequate opportunity to observe how well they recognized novel ideas. Both creative project managers and their supervisors had to express an interest in the study. In total, an initial sample of 121 creative project managers and their supervisors participated. We included an attention check to ensure that both individuals paid close attention to the survey measures, which resulted in 4 dyads being dropped from the final sample. We also excluded 19 dyads for not adhering to the timing of surveys as set out by the study protocol. The final sample consisted of 98 creative project managers and their supervisors.

Creative project managers were 76% male ( $M_{\text{age}} = 29.07$  years,  $SD = 2.89$ ) who had been working for an average of 2.42 years in their current management position. Their supervisors were 83% male ( $M_{\text{age}} = 34.51$  years,  $SD = 4.53$ ) and had an average tenure of 5.70 years in their current management position. Supervisors reported that they had been

working with their creative managers for 4.08 years on average ( $SD = 3.07$ ), which suggests that supervisors had ample time to observe creative managers evaluating ideas at work. Most dyads worked in the advertising (33.7%), information technology (21.4%), and marketing/public relations (14.3%) industries, and within these industries, worked in marketing (33.7%), research and development (10.2%), and management (10.2%) departments. To address concerns about common method variance, we adopted a multi-source, time-lagged design in which creative managers reported tertius iungens brokerage orientation, learning orientation, and control variables, and approximately a week later, their supervisors assessed their novelty recognition ability.

## Measures

All measures were completed using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

### *Tertius Iungens Brokerage Orientation (Time 1)*

Creative managers completed the same 6-item measure of tertius iungens as in previous studies (Obstfeld 2005;  $\alpha = .80$ ).

### *Moderator Variable: Learning Orientation (Time 1)*

We adapted a 4-item measure of learning orientation for this study (VandeWalle, Cron, & Slocum, 2001;  $\alpha = .74$ ). This measure is appropriate for our context because it taps into the tendency for individuals to demonstrate a strong intrinsic interest in learning for the sake of learning and are willing to expend effort to learn. The four items were: “I prefer challenging and difficulty tasks so that I’ll learn a great deal,” “I truly enjoy learning for the sake of learning,” “I like tasks that really force me to think hard,” and “I’m willing to engage in a difficult task if I can learn a lot by doing it.” Research shows that this measure demonstrates acceptable reliability and construct validity (VandeWalle et al., 2001).

#### *Outcome: Novelty Recognition Ability (Time 2)*

The supervisor of each creative manager completed the same three-item measure concerning the extent to which their employee was exceptional at recognizing novel ideas as in Study 1 ( $\alpha = .89$ ). Because the creative managers in this sample worked on creative projects with their supervisor in the past year, their supervisors are likely to have experienced a range of situations in which they could judge the extent to which a creative manager could identify what they perceived as novel ideas.

#### *Control Variables: Mediation And Separation Brokerage Orientations (Time 1)*

Creative managers completed the same measures (Grosser et al., 2019) for mediation ( $\alpha = .67$ ) and separation ( $\alpha = .69$ ) brokerage orientations as in Study 1.

#### *Control Variable: Structural Holes In The Ego Network (Time 1)*

Participants completed the same ego network measure as in Study 2. To limit study fatigue, we asked participants to indicate up to 7 people in their network, as compared to 10 people in the previous studies. We computed the effective network size to capture the number of structural holes in the ego network (M. G. Everett & Borgatti, 2020).

#### *Control Variables: Employee Demographics And Relationship Characteristics*

As per our rationale in Study 1, in this study we also controlled for the employees' age and gender, as well as the amount of time that the manager reported having worked with the employee.

### **Results**

The descriptive statistics and correlations among variables are shown in Table 2.8. Prior to testing our hypotheses, we conducted a confirmatory factor analysis on the main variables in our theoretical model to investigate their distinctiveness: the creative manager's tertius iungens orientation, the creative manager's learning orientation, and the supervisor's rating of the creative manager's novelty recognition ability. First, we tested our hypothesized

three-factor model in which each construct loaded on its own factor ( $\chi^2 = 77.21$ ,  $df = 62$ ,  $p = .092$ , root mean square error of approximation [RMSEA] = .05, standardized root mean residual [SRMR] = .07, comparative fit index [CFI] = .97). Next, we examined the relative fit of this model to two alternative models: (1) a two-factor model where the creative manager's tertius iungens orientation and learning orientation loaded on a single factor and novelty recognition ability loaded on a separate factor, and (2) a one-factor model where all three variables loaded on a single construct. The hypothesized three-factor model (tertius iungens orientation, learning orientation, and novelty recognition ability) with items loading on their respective factors showed stronger fit than either the two-factor model ( $\Delta\chi^2 = 29.76$ ,  $\Delta df = 2$ ,  $p < .001$ , RMSEA = .08, SRMR = .08, CFI = .91) or the one-factor model ( $\Delta\chi^2 = 181.37$ ,  $\Delta df = 3$ ,  $p < .001$ , RMSEA = .018, SRMR = .14, CFI = .61). Overall, these results indicated that our proposed model fit the data better than alternative models and provide support for the distinctiveness of our theoretical constructs.

Our hypothesis tests are shown in Table 2.9. First, we regressed the supervisor's evaluation of the creative manager's novelty recognition ability on the creative manager's tertius iungens orientation, before adding in learning orientation and control variables to the model. As shown in Table 2.9, Model 2, the creative manager's tertius iungens orientation had a marginally significant effect in predicting supervisor ratings of novelty recognition ability,  $b = .29$ ,  $SE = .16$ ,  $p = .083$ , 95% CI [-.04, .61]. However, this marginally significant effect is qualified by the interaction effect in Hypothesis 2, which stated that learning orientation will moderate the relationship between tertius iungens brokerage orientation and novelty recognition. Consistent with this hypothesis, we found that tertius iungens significantly interacted with learning orientation to predict novelty recognition,  $b = .21$ ,  $SE = .10$ ,  $p = .034$ , 95% CI [.02, .40]. To examine the form of this interaction, the simple slopes are shown in Figure 2.4. As this figure shows, individuals who were high in tertius iungens



were perceived as being more exceptional at recognizing novelty when they were high in learning orientation, as compared to when they were low in learning orientation.

**Table 2.8**

*Study 4: Descriptive Statistics: Means, SDs, and Correlations*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Mediation orientation	4.95	1.10								
2. Separation orientation	5.18	1.12	.22							
3. Effective network size	1.46	.46	-.18	-.16						
4. Employee age	29.07	2.89	.05	-.03	-.30					
5. Employee gender (1 = female)	.24	.43	.00	-.08	-.15	-.12				
6. Employee-manager relationship duration	4.08	3.07	.06	-.12	.20	.10	.04			
7. Tertius iungens orientation	5.61	.82	.62	.20	.09	-.03	-.12	-.01		
8. Learning orientation	5.61	.96	.44	.07	.20	.00	-.10	-.05	.62	
9. Perceived novelty recognition	5.56	1.09	-.04	.02	.01	-.11	-.03	-.44	.14	.32

*Note.*  $N = 98$ . Correlations that have an absolute value greater than and equal to .20 are significant at  $p < .05$ .

**Table 2.9***Study 4: Regression Analyses Predicting Perceived Novelty Recognition*

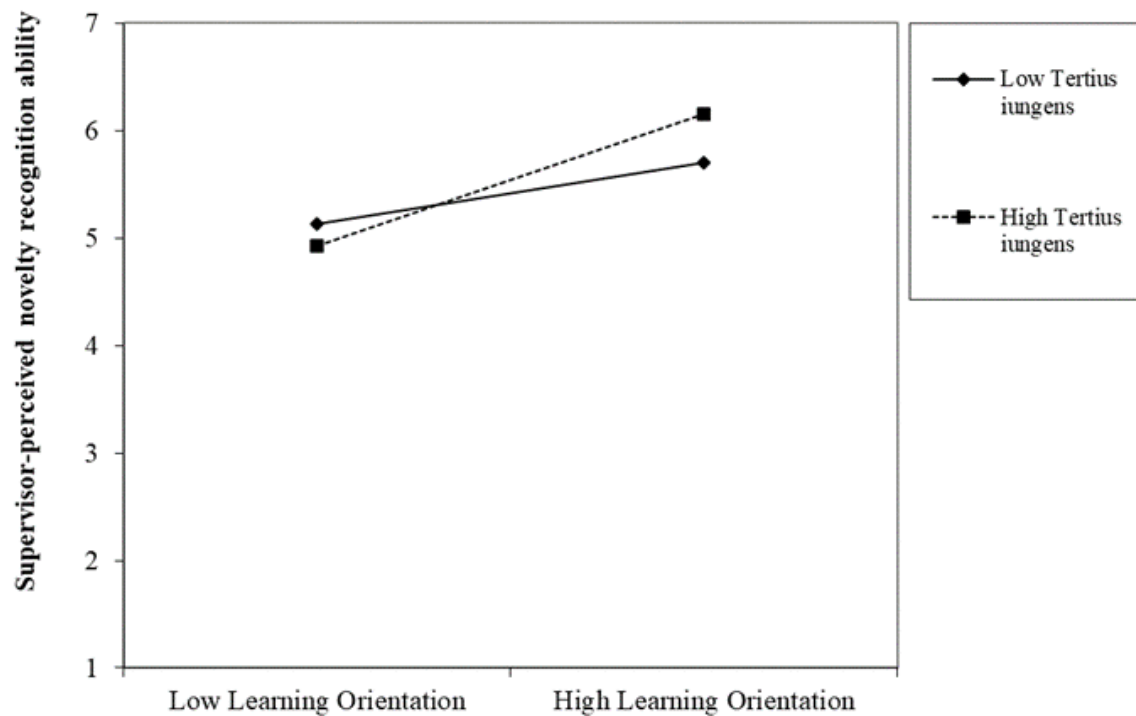
	Model 1		Model 2		Model 3	
Perceived Novelty Recognition						
Predictor	<i>b</i>	s.e.	<i>b</i>	s.e.	<i>b</i>	s.e.
Intercept	5.55***	.11	5.56***	.12	5.50***	.12
Control variables						
Mediation orientation			-.13	.12	-.14	.12
Separation orientation			-.05	.10	-.01	.09
Effective network size			.09	.26	-.07	.25
Employee age			-.02	.04	-.03	.04
Employee gender			.03	.25	-.01	.23
Employee-manager relationship duration			-.16***	.03	-.13***	.03
Tertius iungens orientation	.19	.13	.29 <sup>†</sup>	.16	.09	.17
Learning orientation					.47**	.13
Tertius iungens orientation * Learning Orientation					.21*	.10
R <sup>2</sup>	.02		.23		.35	
<i>N</i>	98		97		97	

*Note.* *N* = 98 ratings in 98 dyads. 97 observations reported in Models 2 and 3 due to 1 participant failing to report their gender. Unstandardized coefficients and robust standard errors are reported.

<sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Figure 2.4**

*Study 4: Interaction between Tertius Iungens and Learning Orientation in Predicting Perceived Novelty Recognition*



## Discussion

The purpose of this study of creative managers and their supervisor's evaluations of novelty recognition ability was to conceptually replicate our prior correlational and experimental findings in a setting with high ecological validity and assess support for learning orientation as a moderator. Findings provide support our theoretical model, showing that creative managers with the propensity to engage in tertius iungens brokerage resulted in higher supervisor ratings of their novelty recognition ability when they had a high learning orientation.

## General Discussion

Scholars have long identified brokers as likely to generate creative output (Baer et al., 2015; Burt, 2004; Burt et al., 2013). But who are the people most likely to detect novel ideas? Prior work largely focuses on how brokers *generate* ideas, but neglects whether and when

brokers can *recognize* the novelty of ideas (Perry-Smith & Mannucci, 2019). The neglect of novelty recognition in the brokerage literature is important, not only because brokers tend to be active in orchestrating the flow of ideas between people, but also because recognizing novel ideas plays a crucial role in which ideas are selected for development (Perry-Smith & Mannucci, 2019; Zhou et al., 2017). Here, we developed a new theoretical account of how *tertius iungens* brokerage enables individuals to recognize novel ideas. We also show how learning orientation amplifies their ability to see novel ideas, because individuals expend greater effort to absorb the information they encounter.

In four studies using quasi-experimental and observational data, we found support for these ideas. In Study 1, we establish that having the tendency to engage in *tertius iungens* brokerage is associated with being perceived as having the ability to recognize novel ideas. We conceptually replicate this finding in Studies 2 and 3 using product evaluation quasi-experiments where individuals with higher *tertius iungens* orientations tended to assign higher novelty ratings to those ideas recognized by external audiences as novel (relative to ideas rated as less novel). These studies provide support for the hypothesized link between *tertius iungens* and the ability to recognize what a likely audience would perceive as novel. In Study 4, we sought to examine this process as it relates to how decision-makers are seen to be exceptional at identifying novel ideas in their workplaces. Using a sample of creative manager-supervisor dyads, this time-lagged, multi-source study revealed that creative managers with a higher propensity to engage in *tertius iungens* were likely to be perceived by their supervisors as being exceptional at identifying novel ideas when they had a high learning orientation. These results have important theoretical implications for the brokerage and idea evaluation literatures.

## Contributions to Brokerage Research

First, we contribute to expanded theorizing of what *tertius iungens*—pointing out common ground between parties or facilitating new connections (Obstfeld, 2005)—tells us about novelty recognition, a neglected part of the creative process. The behavioral side of brokerage has been understudied relative to the structural side of brokerage (Kwon et al., 2020). We provide new theory and evidence showing how *tertius iungens* brokerage offers a hidden benefit beyond a tendency to bring others together. For people who have a preference to engage in *tertius iungens* brokerage, they appear much better equipped to discern what an audience will perceive as novel. Because *tertius iungens* is also implicated in possessing higher self-perceptions of creative performance (Kauppila et al., 2018) and involvement in innovation (Grosser et al., 2019; Obstfeld, 2005), this finding implies that the work of individuals with *tertius iungens* tendencies may be especially influential in shaping creative processes. Indeed, we may surmise that the brokerage activities of individuals with a *tertius iungens* orientation are particularly fruitful because of their ability to identify (and potentially encourage) what is new and unfamiliar.

Second, this paper adds to a growing line of work on the important roles that different “types” of brokers play in the context of creativity and innovation activities at work. Based on prior work, the generators of creativity are individuals whose position in the network exposes them to diverse information and ideas (Burt, 2004; Fleming et al., 2007), which suggests that these individuals are well suited to tasks that require creative output. However, our work clarifies that, if the task requires the evaluation of novel ideas, then another type of broker—those engaged in *tertius iungens* activities—may be better suited. *Tertius iungens* brokerage predicted novelty recognition above and beyond brokerage as a structural position in the ego network, mediation brokerage tendencies, and separation brokerage tendencies. Together, our studies indicate that the broad link between brokerage and creative processes is

more complicated than previously thought, such that structural brokers (as reflected in perceptions of the ego network) and *tertius iungens* brokers each have distinct but significant roles to play in different stages (i.e., generation versus evaluation) of the creative process.

Finally, the finding that having a higher learning orientation moderates the relationship between *tertius iungens* brokerage and novelty recognition (Chadwick & Raver, 2015; DeShon & Gillespie, 2005; Dweck, 1986; Dweck & Leggett, 1988) has important implications for how brokers update their own implicit theories for evaluating novel ideas. According to our theoretical model, *tertius iungens* brokers are able to recognize novel ideas because they are more likely to access information about others' needs in order to figure out how to foster new connections. By demonstrating the moderating effect of being learning oriented, we highlight that gaining access is not equivalent to the information being automatically useful, and that it really depends on the brokers' efforts to learn and assimilate the information they gain about others that helps them to recognize others' novelty preferences.

### **Contributions to the Idea Evaluation Literature**

Our work uncovers a new explanation—one that involves learning what others perceive as novel—for how people tend to recognize novel ideas. Prior research demonstrates that evaluator characteristics play a role in how people overcome the bias against novelty by enabling the evaluator to form more positive or less negative associations with an idea's novelty (Mueller et al., 2014; Sijbom et al., 2015; Silvia, 2008; Zhou et al., 2017). However, this body of work is concerned with changing the evaluator's associations with novelty itself, and is only part of the story. Here, we offer a new perspective showing how individual differences in brokering tendencies and learning orientation predispose individuals to be good at recognizing novel ideas, because they are the ones likely to gain access to information

about others' novelty preferences, and are likely to use this information to help them evaluate ideas in the eyes of others.

Second, our findings also point to the importance of considering how evaluators take the context (i.e., an audience) into account when evaluating novelty. Existing research acknowledges the variance among individuals in the extent to which they value and conceive of novelty and usefulness as features of creativity (Diedrich et al., 2015; Harvey & Berry, 2022; Litchfield et al., 2015), but what remains underemphasized are theoretical accounts of how the context, such as audience preferences, play a role in affecting how evaluators perceive an idea's novelty. We view the evaluator and the audience as linked, such that when an evaluator (i.e., a *tertius iungens* broker) seeks to foster new connections between others, they actively seek to learn a great deal about other parties that also allows them to form sharper evaluations of what these parties would perceive as novel. This paper points to fruitful research directions concerning how evaluators navigate the inherent tensions that surface when taking the audience into account. For example, our study suggests that *tertius iungens* brokers are better attuned to the novelty preferences of external audiences. But important new directions emerge from this work, such as what happens when *tertius iungens* brokers' own novelty preferences are in competition with those of an external audience, how *tertius iungens* brokers evaluate their own ideas (as opposed to the ideas of others), or how *tertius iungens* brokers may react differently to novel ideas, depending on the characteristics of the person who has created and pitched the idea.

### **Practical Implications**

We believe that our findings have at least two practical implications for those engaged in creative work. First, we identify *tertius iungens* as a key variable that makes individuals better at recognizing novel ideas. This finding suggests the potential benefits of identifying individuals with a high *tertius iungens* orientation as suitable candidates for roles involving

idea evaluation responsibilities within the workplace. Second, we also highlight the importance of learning and incorporating what external audience consider as novel in order to help individuals recognize novel ideas at work. Current recommendations in overcoming biases against novelty advises creators to modify the way their ideas are presented, which positions evaluators as passive recipients (Falchetti et al., 2022; Lu et al., 2019; Mount et al., 2021). Instead, our current paper speaks to the importance of evaluators being a “connector” (i.e., a *tertius iungens* broker) to learn how ideas are valued by different audiences, so that they may play an active role in overcoming their own biases against novelty.

### **Strengths, Limitations, and Future Directions**

This research has several notable strengths. We found that creative workers who tended to engage in *tertius iungens* brokerage were perceived by their supervisors as having exceptional novelty recognition abilities. We extended these results in two quasi-experimental settings, where we selected and varied the actual novelty (as assessed by an external audience) of ideas, and demonstrated that *tertius iungens* brokers did actually exhibit greater novelty recognition abilities. With the use of cross-cultural samples that spanned creative employees, creative managers, and the general population, the use of these complementary designs adds confidence in the inferences drawn across these studies.

As in all studies, however, this work has several limitations. First, initial research on *tertius iungens* helped explain how brokers were able to bring people together for creative projects to help provide the crucial resources needed to develop ideas (Obstfeld, 2005; Obstfeld et al., 2014). Our paper suggests that such *tertius iungens* brokers excel at recognizing novel ideas, but we also find no evidence that they are better than others at recognizing conventional ideas. This raises a boundary condition suggesting that *tertius iungens* brokers are only valuable network agents where novel ideas are sought after as valuable. Questions remain as to whether they serve as useful brokers in other forms of work



requiring more normative or conventional thinking. Indeed, research shows that there are situations where conventional ideas are preferred by evaluators at work (Litchfield et al., 2015), thereby relegating the importance of *tertius iungens* to a lower status. However, it could also be that, in these situations, being able to pick out what is considered novel may assist the evaluator in discarding highly novel ideas that are of no value to the specific context.

Second, because *tertius iungens* orientation is thought of as a stable variable (Obstfeld, 2005; Soda et al., 2018), we measured *tertius iungens* brokerage directly instead of using an experimental manipulation in our two quasi-experiments (Grant & Wall, 2009). In all of our studies, we measured other forms of behavioral brokerage (mediation brokerage, separation brokerage) and structural brokerage (as reflected in different measures of brokerage, such as constraint, betweenness, and effective size in the network) to rule out alternative explanations. Yet, it is important to understand how the social environment may influence the relationships we observed here. It is possible that other characteristics of the social network (e.g., the idea sharing tendencies of a person's interaction partners) or the social environment (e.g., cultural or organizational norms towards idea sharing) affect how much *tertius iungens* brokers are able to learn about novelty preferences from social interactions. Future work should explore how these important social characteristics affect what people can learn about novelty preferences from social interactions.

Finally, while we find that *tertius iungens* brokerage relates to novelty recognition, it is possible that this effect may depend on the type of *tertius iungens* brokerage. Recent conceptualizations of *tertius iungens* have sought to decompose it into brief and sustained forms that reflect the tendency to either “introduce or facilitate preexisting ties between parties such that the coordinative role of *tertius iungens* subsequently recedes in importance (brief *iungens*)” or “introduce or facilitate interaction between parties while maintaining an

essential coordinative role over time (sustained iungens)” (Grosser et al., 2019, p. 117). Thus, depending on the level of coordination that is required, individuals may “switch off” in situations when they need not be as involved to maintain the connections of others over time. Potentially, this could affect the extent in which evaluators are willing and able to communicate with a target audience for whom they are evaluating creative ideas. The more they are able to interact and communicate with others, the more they will have an opportunity to acquire, process, and use the knowledge used in recognizing if others perceive an idea as novel. Thus, future research could further delineate the potential different influences between brief and sustained iungens on novelty recognition.

### **Conclusion**

Existing research is replete with examples of how novel ideas are sought after by external audiences, but overlooked by the people evaluating them. Recognizing these novel ideas in organizations is a key part of the creativity process, but also one that has been neglected in favor of understanding other outcomes, such the generation of ideas. While we have known for some time that brokers hold key roles in the creative landscape, little is known about their capacity to discern the novelty of ideas. Here, we have sought to deepen our understanding of how one important variable in the network literature—a *tertius iungens* orientation—can affect the way in which people perceive novel ideas. In studies involving new patent ideas, product ideas, and supervisory assessments of creative employees and managers being exceptional at identifying novel ideas, we established that the propensity to engage in *tertius iungens* at work enhances the evaluator’s ability to recognize if external audiences perceive an idea as novel, and that this effect is amplified when they are more learning oriented.

## **CHAPTER 3:**

### **Falsely perceiving who relies on the ideas and advice we share:**

#### **Power, relationship meta-perceptions, and beneficial consequences over time**

Ideas and advice are a defining feature of our social connections. But directing our ideas and advice towards the people who value them most can be a tricky process to navigate. To do so, a person may rely on their meta-perception of the relationship -- what they believe the other person believes about the relationship. Meta-perceptions can be especially useful in helping people navigate relationships (Eisenkraft et al., 2017; Elfenbein et al., 2009; Kenny, 1994). For example, when people form accurate meta-perceptions of who relies on them for advice, they can channel their best ideas and recommendations towards the people they believe rely on them. But inaccurate meta-perceptions, such as falsely believing that others rely on you for advice when in fact they do not, can carry the risk of approaching these social interactions in suboptimal ways (e.g., sharing advice with people who do not use it).

Naturally, research across the social sciences (e.g., Byron & Landis, 2020; Grutterink & Meister, 2022; Kenny, 1994) depicts inaccurate meta-perceptions as detrimental. Mistaken beliefs about who values our ideas and advice do not appear at first glance to have much upside. To date, however, the small but growing literature on meta-perceptions of relationships largely assumes that accurate meta-perceptions of relationships are beneficial without an actual empirical test. As such, our knowledge is limited about which factors lead to inaccurate meta-perceptions of idea and advice sharing relationships, and whether such inaccuracies are consistently detrimental. Here, we put forward the idea that although there are likely to be many benefits to accurate dyadic meta-perceptions of relationships, there may be cases where such inaccuracies, over time, may actually be beneficial.

We propose that one factor that can foster a better understanding of how inaccurate meta-perceptions arise and their consequences over time is a personal sense of power

(Anderson et al., 2012). We reason that people with a higher personal sense of power are likely to have inaccurate dyadic meta-perceptions of who relies on them for ideas and advice, where they believe that others value their ideas or rely on them for advice, even when they do not. In turn, these inaccurate meta-perceptions create the possibility of three consequences that occur over time. The first consequence over time is a *network coevolution* process in which a personal sense of power increases the development of false meta-perceptions, which in turn increase a personal sense of power, and so forth. The second consequence over time is a *self-fulfilling prophecy* in which the initial, false meta-perception that another person relies on us for ideas and advice leads to behavior towards that person that increases the likelihood that they actually rely on us for advice in the future. The third consequence over time is a process of *eroding social barriers* in which the initial reluctance of people (especially those who feel a high personal sense of power) to seek advice is eroded by the false meta-perception that another person relies on them for advice.

To investigate these consequences of meta-perceptions, we adopt an approach that is well-suited to addressing two important empirical realities in our longitudinal data. First, time is a neglected but valuable aspect to study in meta-perception processes. With notable exceptions (e.g., Carlson, 2016), much of the research on meta-perceptions focuses on meta-perceptions studied at a single point in time (Byron & Landis, 2020; Grutterink & Meister, 2022). However, meta-perceivers are likely to change their behavior over the course of repeated social interactions. Second, incorporating the element of time calls for a statistical approach that can account for mutual influence processes (each person can affect each other's perceptions and behaviors), the tendency for regular patterns of social interactions to emerge in longitudinal data (e.g., relationships tend to become reciprocal and balanced over time; Heider, 1958), and the non-independence of social relationship data. Here, we use a stochastic actor-oriented modeling approach (SAOM; Kalish, 2020; Snijders, 1996, 2017) to

handle perceiver-target mutual influence processes, endogenous network patterns, and the non-independence of social relationship data to investigate how meta-perceptions affect outcomes over time.

We find consistent support across three studies for the relationship between a personal sense of power and inaccurate dyadic meta-perceptions about idea and advice sharing. Among initial acquaintances (Study 1), group members (Study 2), and a student cohort (Study 3), people with a higher personal sense of power tend to believe that others value their ideas and advice, even when they do not. In SAOM analyses of a student cohort across four timepoints (Study 3), we examine all three consequences of inaccurate dyadic meta-perceptions about advice sharing, and find no support for the *network coevolution* process, no support for the *self-fulfilling prophecy* process, and strong support for the *eroding social barriers* process. Thus, whereas much of the research to date has characterized inaccurate dyadic meta-perceptions as being detrimental, we suggest and find that these inaccurate dyadic meta-perceptions can sometimes be a blessing in disguise, prompting people who are initially reluctant to seek advice (i.e., those who feel powerful) into advice-seeking relationships.

## **Theoretical Background**

### **Meta-Perceptions of Relationships**

The social interactions we have with others form regular patterns that characterize the essence of relationships. Relationships can differ in duration, ranging from the initial stages of first acquaintance (Elsaadawy & Carlson, 2022; Swider et al., 2022; Tissera et al., 2023) to established patterns of interaction (Robins et al., 1996; Van Den Bos et al., 2012), each of which offer meta-perceivers different amounts of information on which to form their meta-perception. People also vary in the extent to which social interactions are believed to actually constitute a relationship. For example, other people can be friendly towards us without seeing

us as a personal friend, or seek advice from us without relying on us as an advisor. This makes understanding what the other person believes about the relationship both challenging and consequential.

The literature on meta-perceptions primarily focuses on how well we can perceive how others perceive our traits or attitudes (Boothby et al., 2018; Carlson, 2016; Elsaadawy & Carlson, 2022; Tissera et al., 2021; Tsankova & Tair, 2021). There has been relatively less emphasis on meta-perceptions of social relationships (Grutterink & Meister, 2022). Given the significance of relationships to our social lives, relationship meta-perceptions are important phenomena to study. We focus here on idea and advice relationships, a type of instrumental relationship (Lincoln & Miller, 1979) that is distinct from expressive relationships that are based on social bonds (e.g., acquaintances, friendships, romantic partners; Carlson, 2016). Whereas meta-perceptions can be generalized, (e.g., our meta-perceptions of what others generally think of our relationships, such as “I think everyone in general depend on me for advice”), we focus on dyadic meta-perceptions of relationships to isolate the variability in how we perceive what specific individuals think of our relationships (e.g., “I think Jill does not depend on me for advice, but Alex does depend on me for advice”). Relationship meta-perceptions can be inaccurate in two ways (Byron & Landis, 2020): Meta-perceivers can overestimate the extent to which another person claims a relationship with them (a false meta-perception) or underestimate the extent to another person claims a relationship with them (an overlooked meta-perception).

The task of accurately perceiving our social ties is a complicated one, owing in part to the sheer number of social interactions and relationships that people need to track (see Basyouni & Parkinson, 2022, for a recent review). One way people form meta-perceptions is via an external pathway, where people rely on external information, such as others’ behaviors, to form inferences about what the other person may believe about the dyadic

relationship. Studies highlight how certain behaviors, such as leaders delegating tasks to another person (Lau et al., 2007), can reveal how much a leader trusts that person and thus promote accurate meta-perceptions of trust (Campagna et al., 2020). Gossip can reveal information about what another person may be thinking (Basyouni & Parkinson, 2022), especially in cases where people may be likely to monitor and withhold information that may be diagnostic of their true feelings, such as in how much they want to compete with someone (Eisenkraft et al., 2017).

Another way that meta-perceptions are formed is via an internal pathway – people rely on their self-perception as a heuristic to determine what others think (self-projection; Kenny, 2020). A commonly used heuristic under self-projection is the reciprocity (balance) heuristic: People ask themselves what they think and feel about their relationship toward a specific person and use this information in forming a meta-perception (Eisenkraft et al., 2017). In other words, if we like other people, we assume other people like us (Heider, 1958). The reciprocity heuristic (also known as the balance principle) has been useful in explaining why meta-perceptions tend to be accurate in positive relationships that are reciprocated but tend to break down in relationships that are non-reciprocal (e.g., who competes with us) (Eisenkraft et al., 2017). While the reciprocity heuristic generally receives strong empirical support in network learning studies and dyadic meta-accuracy research (Brands, 2013; Kenny & DePaulo, 1993; Landis et al., 2018; Simpson et al., 2011), in our arguments below, we suggest an alternative self-projection mechanism when it comes to the effects of a personal sense of power on meta-perceptions.

### **Personal Sense of Power**

We define a sense of power as “the perception of one’s ability to influence another person or other people” (Anderson et al., 2012, p. 316). Power comes from many sources (French & Raven, 1959; Guinote, 2017; Keltner et al., 2003; Magee & Galinsky, 2008), but

the extent to which people feel powerful is likely to have a proximal role in influencing their attitudes and behavior (Anderson & Berdahl, 2002; Galinsky et al., 2003). As one might expect, power plays an important role in where people direct their attention and therefore observe information that can be diagnostic of how others perceive their relationships. However, evidence has been mixed regarding how power affects meta-perceptions. There is some evidence suggesting that a sense of power predicts *inaccurate* dyadic meta-perceptions of alliances (Brion & Anderson, 2013). But there have also been data showing that both measures of informal power (peer ratings of influence) and formal power (formal power roles) predict *accurate* dyadic meta-perceptions of dislike and friendship (Marineau et al., 2018). One reason for the mixed results to date may be due in part to the use of distal measures of power (e.g., formal roles) that fail to capture meaningful differences between people in how much power they actually feel (cf. Anderson et al., 2012).

How does a personal sense of power fuel inaccurate meta-perceptions? Whereas research has primarily relied on heuristic explanations, we suggest another cognitive mechanism. First, prior work has emphasized the role of the reciprocity heuristic to explain how people take their own perceptions of another person (“I like this person”) and use those perceptions to form a meta-perception (“This person must also like me”) (Eisenkraft et al., 2017). According to power-approach theory, power is associated with greater heuristic thinking (Keltner et al., 2003), implying that people who feel powerful rely on balance (I like you, you must also like me) and transitivity (Michelle influences Adam, Adam influences Natalia, therefore Michelle must influence Natalia) heuristics. In support of this idea, studies show that higher power relates to assuming relationships are balanced, even when they are not (Simpson et al., 2011), and higher power relates to assuming relationships are transitive, even when they are not (Landis et al., 2018). Relatedly, a study found that leaders’ low power dependence on their follower positively moderated the effect of a leader’s self-projection bias



on the leader's LMX meta-perceptions about the follower (Yuan et al., 2022). It is noteworthy however, that this study assumed but did not actually measure power as experienced by the leader. Against this backdrop of existing work, we might therefore surmise that a high personal sense of power will increase reliance on the reciprocity heuristic, leading people to assume that others rely on them for advice when we rely on them for advice.

However, we suggest that this heuristic explanation may be insufficient for understanding how power predicts inaccurate meta-perceptions. First, it is at odds with other research showing that power relates to a preference for relationships that are *asymmetrical* (for a review, see Magee & Galinsky, 2008). Higher power relates to being less likely to take advice from others (See et al., 2011; Tost et al., 2012). People who feel powerful may find it uncomfortable to see themselves as the seekers of ideas and advice rather than the providers of it. If so, people may find it difficult to form meta-perceptions of idea and advice relationships that do not conform to the typical, asymmetric patterns of one person giving ideas and advice, and another person receiving it (De Soto, 1960). More broadly, empirical studies do not regularly test for the existence of this mechanism. If this mechanism helps explain why higher power relates to inaccurate meta-perceptions, then what we should see is that, when a person claims that they go to another person for ideas and advice, they should be more likely to claim that the other person comes to them for ideas and advice. As shown in two of our studies below, we test for evidence of this effect and rule it out as a mechanism in this context.

Instead, we suggest that another cognitive mechanism other than the reciprocity heuristic may be at work. We reason that a higher personal sense of power increases a reliance on self-projection, where meta-perceivers rely on *their own view of themselves* to determine how other individuals might think about their relationship with the meta-perceiver

(Kenny, 2020). That is, feeling powerful does not predispose people to rely on the reciprocity heuristic as much as it predisposes them to project their own self-views onto relationships. Power increases the likelihood that people rely on their own vantage point instead of spontaneously taking others' perspectives (Galinsky et al., 2006). A personal sense of power captures views of the self as influential, increasing the likelihood that they look for confirmatory evidence of their expected influence (Magee & Galinsky, 2008) when forming meta-perceptions of idea and advice relationships. Thus, whereas the reciprocity heuristic would suggest that people with a higher personal sense of power rely on one's own perceptions of the *relationship* to form a meta-perception, we suggest that people with a higher personal sense of power rely on one's own *self-views* as powerful and influential to form meta-perceptions. Thus, we expect that the higher the personal sense of power, the greater the tendency for individuals to form inaccurate (false) meta-perceptions of idea and advice relationships.

### **Consequences of Meta-Perceptions over Time**

Although scholars have established that individuals develop inaccurate meta-perceptions across different domains, there has been a surprising lack of evidence examining what happens after these meta-perceptions occur (Byron & Landis, 2020; Elsaadawy & Carlson, 2022; Grutterink & Meister, 2022; Kenny, 2020; Tissera et al., 2021). Research examining consequences suggests that when individuals perceive others as generally seeing them in a positive light, beneficial meta-perceiver outcomes can be observed, such as enhanced public speaking (Kleinlogel et al., 2020), enhanced psychological self-adjustment (Humberg et al., 2019), or increased liking of others (Tissera et al., 2023). In addition, individuals who possessed accurate meta-perceptions about how others perceived their traits at the start of a relationship reported having greater relationship quality, and others also reported enjoying their relationships with these accurate meta-perceivers (Carlson, 2016).

These studies also further sought to track the longitudinal effects of forming such meta-perceptions (e.g., Carlson, 2016; Elsaadawy et al., 2021). However, these prior studies focused on meta-accuracy about an individual's *traits* or their *attraction* to others, rather than about the specific nature of their *relationship* with others. Below, we suggest that the consequences of false advice meta-perceptions about relationships could play out in three different ways that serve to benefit the individual. We set up three distinct arguments, and label them accordingly as the *network coevolution hypothesis*, the *self-fulfilling prophecy hypothesis*, and the *eroding social barriers* arguments.

*Network Coevolution: Power and False Meta-Perceptions Mutually Influence Each Other over Time*

We propose that a consequence of power creating false meta-perceptions is that both power and false meta-perceptions may influence each other over time and positively coevolve. In recent years, social cognition research increasingly suggests that the relationship between individual differences and social perceptions derived are bidirectional (Cook & Kenny, 2005; Human et al., 2020; Ma et al., 2023; Parker et al., 2023; Schulte et al., 2012; Tröster et al., 2019; van Zalk et al., 2020). The propensity for a certain belief may trigger certain behavioral reactions, which in turn reinforce and increase certain beliefs, and so forth. For example, research on extraversion and friendship found that individuals high in extraversion were more likely to make more friends who were extraverted (van Zalk et al., 2020). Over time, because these friends were extraverted, they were more likely to influence individuals to act in more extraverted ways as well. Drawing on this, we propose that as time goes by, as individuals with a high sense of power falsely perceive that others depend on them for advice, having false advice meta-perceptions will consequently make them feel even more powerful.

Attribution theory (Heider, 1958; Kelley, 1967) suggests that perceiving others'

behaviors may trigger attributions about why others would come to the meta-perceiver for advice. Giving advice leads individuals to feel powerful (Schaerer et al., 2018), so when an individual falsely perceives that another person sees the individual as a provider of advice, they may form attributions that the other person comes to the individual for advice because they see the individual as a powerful person. This false meta-perception may not only reinforce the individual's self-perception as someone who is powerful and a source of resources in their network, but further heighten their self-concept, thus increasing their sense of power. As such, we would expect a positive network coevolution effect to occur, such that a personal sense of power and false meta-perceptions mutually influence each other in positive ways over time.

*Self-Fulfilling Prophecy: False Meta-Perceptions Lead to Actual Advice Relationships over Time*

A second possible consequence of false advice meta-perceptions over time is a self-fulfilling prophecy (Jussim, 2012), such that they end up behaving in ways that motivate others to come to them for advice over time. Self-fulfilling prophecies (Merton, 1948; Rosenthal & Jacobson, 1968) concern how the expectations that meta-perceivers have tend to lead them to treat the target of their expectations in certain ways. As the experience of power can lead individuals to behave in action-oriented or goal-oriented ways (Cho & Keltner, 2020; Guinote, 2017; Keltner et al., 2003), the false expectations that others see the individual as a source of advice may motivate individuals to behave in ways that cause others to form an actual dependence on the individual for advice. Specifically, they may be eager to maintain their positive self-views (Pfeffer & Fong, 2005; Taylor & Brown, 1994), and may act in ways to reinforce their self-concept. One potential source of action that individuals can take is to actually provide advice to others. Individuals may inadvertently create a psychologically safe environment by acting upon their false beliefs, which could motivate

others into seeking advice (Y. Li et al., 2018; Schulte et al., 2012). In sum, when those who feel a high personal sense of power develop false advice meta-perceptions, it might lead to behavior towards other individuals that results in an actual advice relationship being formed.

*Eroding Social Barriers: False Meta-Perceptions of Advice Erode the Barriers to Asking for Advice over Time*

A third consequence of power creating false advice meta-perceptions is that it motivates individuals with a high personal sense of power to seek advice from others. Studies show that while power can motivate individuals to *give* advice, such individuals are reluctant to *take* advice from others (See et al., 2011; Tost et al., 2012). Seeking advice can impose reputational costs, such as acknowledging a lack of knowledge or certainty about what to do, or implying a dependence on others for information (Ames & Lau, 1982; Lee, 1997). Extrapolating from this work, seeking advice from others may be construed as a detrimental act, as it tips the scales from being seen as someone who is generous in giving, and can cause them to lose their perceived power over others. Thus, those who perceive themselves as powerful likely face a strong social barrier in seeking advice from others.

However, we suggest that developing false advice meta-perceptions may serve to overcome this psychological barrier faced by refocusing their attention towards legitimate grounds that motivates them to seek advice from others without worrying about incurred costs. In a study of advice relationships, individuals were more likely to seek advice from those they had provided advice to, rather than seeking advice from others from those unrelated to them (Agneessens & Wittek, 2012). Individuals were more likely to access the people whom they already had an advice relationship with, rather than attempting to maintain their social status and seeking advice from others who they had not given advice to before. Seeking advice from these existing advice providers was seen as a to enhance performance at work. In addition, while past research established legitimate concerns of those who perceive

themselves as powerful in incurring social costs when they sought advice, increasing research suggests that individuals tend to perceive advice seekers as competent (Brooks et al., 2015), and that those who perceive themselves as powerful are more willing to seek advice when they construe power as a responsibility (De Wit et al., 2017). Combining these findings together, it thus appears that those who feel powerful are more likely to be inoculated against fears of incompetence and the loss of power as initially thought. Developing false meta-perceptions serve as a buffer from the threat against losing one's perceived power by shifting the individual's attention to the idea that they now have access to advice resources. Hence, this buffer makes them more likely to seek advice from those whom they perceived as having sought advice from themselves.

### **Overview of Studies**

We conducted three studies to examine whether a sense of power is linked to false advice meta-perceptions during stages of initial impressions (Study 1), work groups (Study 2), and a student cohort (Study 3), and if so, what the consequences of these advice meta-perceptions are over time. In Study 1, a chatroom interaction study, we test whether people with a higher generalized sense of power, measured prior to any social interactions, tend to develop false meta-perceptions of idea appreciation, measured post-interactions. In Study 2, a social network study of advice seeking in student project teams, we examine whether people with a high personal sense of power tend to have false meta-perceptions of advice seeking. In Studies 1 and 2, we also test for evidence whether feeling powerful increases the reliance on the reciprocity heuristic to form false meta-perceptions. In Study 3, a four-wave longitudinal study of a student cohort, we examine the link between sense of power and false meta-perceptions of advice seeking, and extend our analysis to the consequences of these false meta-perceptions over time. By examining sense of power and false meta-perceptions of advice seeking at four time points, this study allows us to test our three time-oriented

accounts of how false meta-perceptions unfold with the passage of time. In this study, we adopt a stochastic actor-oriented modeling approach, allowing us to gain insights into the complex interplay among sense of power, meta-perceptions, and the changing network of connections over time.

## **Study 1: Method**

### **Participants and Procedure**

We aimed to recruit 250 US participants from Amazon's MTurk, who were each paid \$6 USD. We excluded participants based on attention and data quality checks (Oppenheimer et al., 2009; Rosenzweig et al., 2020)<sup>3</sup>. We analyzed individuals ( $N = 187$ ; 87 women, 100 men;  $M_{\text{age}} = 39.98$ ,  $SD = 10.17$ ) spread across 64 groups, which produced 374 observations at the dyadic (relationship) level.

We used a round-robin design where participants were allocated to groups of three in online chatrooms. In these chatrooms, they were asked to brainstorm ideas for a new business proposal with their group members. The purpose of engaging in a brainstorming task through an online chatroom was to provide participants with an opportunity to form a nascent network and develop impressions of each other. Before participants entered the chatroom, we told them that they would be asked to brainstorm with other participants to create a for-profit business proposal, which included coming up with the name of the new company, the company slogan, and details on the product/service that they will sell (Baer & Brown, 2012). To maintain anonymity on these online chatrooms yet also ensure that participants would remember each group member's name and be able to identify them when evaluating them, we randomly assigned each person an ID, such as Player A/B/C. Prior to entering the chatroom,

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<sup>3</sup> We excluded teams where only 2 out of 3 participants took part in the chat study, and when participants were unable to be matched onto a team by our system. For participants who were included into our study as part of the 64 teams, participant observations were further excluded if they failed an attention check which asked them to enter Bridgerton when prompted to write down their favorite show.

participants completed the generalized sense of power measure described below. Participants were given 10 minutes to interact in the chatroom before they were redirected to the next page and reported their perceptions of the advice relationships that emerged during the group interactions.

## **Measures**

All measures were answered using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*).

### *Pre-Interaction Generalized Personal Sense of Power*

Prior to any social interaction, participants completed a measure of their generalized personal sense of power (Anderson et al., 2012;  $\alpha = .93$ ). To capture generalized feelings of power vis-à-vis others, we prefaced each item with the stem, “In my relationships with others...”. The 8-item measure included, “I can get them to listen to what I say,” “I think I have a great deal of power,” and “Even when I try, I am not able to get my way” (reverse-scored).

### *Post-Interaction Dyadic Meta-Perceptions*

We captured each perceiver’s post-interaction dyadic meta-perceptions by asking perceivers to rate, for each group member (target), the extent to which they agreed with the following item: “I think that Player X valued and appreciated the ideas I presented.” Thus, for each target, each perceiver reported their meta-perception of the extent to which the group member (target) valued and appreciated the ideas they presented. Because the study was contextualized to proxy the exchange of ideas in a team setting, we chose to measure advice appreciation (i.e., the appreciation of ideas shared by the perceiver) to match the relationship meta-perceptions to the context, rather than using broader items capturing broader advice giving and seeking.

### *Post-Interaction Actual Dyadic Perceptions*



We measured each target's actual post-interaction idea appreciation perceptions by asking individuals to rate, for each person, the extent to which they agreed with the following statement: "I appreciated and valued the ideas that Player X presented." This perception served as our measure of the actual dyadic perception for each target (i.e., whether each person actually valued and appreciated the ideas presented by a particular perceiver).

### **Analytic Approach**

Individuals rated their two other group members in this round-robin design. Ratings could be more similar to one another (and thus violate the assumption of independent observations required for least-squares regression analyses) due to ratings coming from the same group, the same perceiver, the same target, or the same perceiver-target (dyad) pair. We examined the extent to which such non-independence was present in our data by running null, intercept-only models, which revealed that a significant amount of variability could be attributed to differences between perceivers (approximately 74%), groups (approximately 22%), perceiver-target pairs (approximately 12%) and between targets being rated (approximately 4%). Thus, we sought to estimate cross-classified regression models, such that perceiver, target, and dyadic effects are specified as cross-classified effects nested under group effects, to account for both non-independent observations and the hierarchical structure of our data (Beretvas, 2010; Claus et al., 2020). However, cross-classified models are computationally complex and suffer from convergence issues, which was the case here, so we adopted a comparable approach by clustering robust standard errors on each source of non-independence that similarly accounts for the non-independence and clustering in our data. This approach has been used as an effective method in approaching non-independence issues within dyad-level network studies (see Kleinbaum et al., 2013, 2015, for detailed discussion). False advice meta-perceptions occur when our predictor (sense of power) explains significant variance in perceiver advice meta-perceptions, controlling for the variability that can be

explained by actual advice perceptions (i.e., the target's actual belief about the perceiver). To account for interdependent effects occurring within each dyad, we also controlled for the target's meta-perception towards the perceiver, and the perceiver's actual perception towards the target in our analytic model. In this context, we should expect to see a perceiver's sense of power having a positive effect on the perceiver reporting each team member as appreciating their ideas, controlling for the variability explained by team members' actual appreciation of ideas, perceivers' own appreciation of other's ideas, and team members' meta-perception of the perceiver valuing their idea. Analyses were performed using Stata 18.0.

## Results

The descriptive statistics and correlations are shown in Table 3.1. We first examined whether a perceiver's generalized sense of power predicted false dyadic meta-perceptions. There was a significant link between generalized sense of power and false dyadic meta-perceptions,  $b = .20$ ,  $SE = .07$ , 95% CI [.06, .34],  $p = .007$ , as shown in Table 3.2, Model 1. This result indicates that, on a dyadic level, a higher generalized sense of power predisposes people to believing that others value and appreciate their ideas, irrespective of whether they actually value and appreciate their ideas.

Second, we tested whether this link between feelings of power and false meta-perceptions stemmed from reliance on the assumed reciprocity heuristic. To do so, we interacted feelings of power with perceptions that the *perceiver* valued and appreciated ideas presented by the *target*. If power increases the likelihood the perceiver relies on the assumed reciprocity heuristic (e.g., "If I value and appreciate the ideas of this person, they also value and appreciate my ideas") to form meta-perceptions, then we should see that at higher levels of feeling powerful, there should be a stronger relationship between feelings of power and perceptions that the perceiver values and appreciates the ideas presented by the target in

predicting false meta-perceptions (i.e., whether the perceiver falsely believes the target values and appreciates their ideas).

However, we did not observe a significant interaction effect between sense of power and the perceiver valuing and appreciating the ideas presented by the target in predicting whether the perceiver believes the target valued and appreciated the perceiver's ideas,  $b = -.06$ ,  $SE = .08$ ,  $p = .441$ , 95% CI  $[-.22, .10]$ , as shown in Table 3.2, Model 2.

**Table 3.1**

*Study 1: Descriptive Statistics: Means, SDs, and Correlations*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4
1. Sense of power	4.74	1.17				
2. Perceiver's advice meta-perception	5.86	1.45	.22***			
3. Target's advice perception	6.14	1.18	-.07	.20**		
4. Perceiver's advice perception	6.10	1.24	.15**	.52***	.01	
5. Target's advice meta-perception	5.89	1.42	-.01	.12*	.51***	.18***

Note:  $N = 374$  observations, 187 participants.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Table 3.2**

*Study 1: Clustered Regression Analyses Predicting Advice Meta-Perceptions*

Variable	Model 1		Model 2	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Intercept	5.85***	.09	5.86***	.09
Perceiver's advice perception	.61***	.07	.59***	.07
Target's advice perception	.31***	.08	.32***	.08
Target's advice meta-perception	-.11	.07	-.11	.07
Sense of power	.20**	.07	.20**	.07
Sense of power X perceiver's advice perception			-.06	.08
Log Likelihood	-590.91		-589.81	
<i>N</i>	374		374	

Note:  $N = 374$  observations in 64 teams. Unstandardized coefficients and robust standard errors are reported.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

## Discussion

The results of this study show support for our proposed main effect, that feeling powerful predicts an individual's tendency to develop false dyadic meta-perceptions. This

was demonstrated in the context of sense of power being measured in relation to a person's general interactions towards others and prior to any direct social contact with group members in the study. This lends support for the notion that, in terms of temporal precedence and directionality, higher sense of power leads to false dyadic meta-perceptions. We did not find significant evidence that this effect occurs due to power increasing reliance on the assumed reciprocity heuristic (i.e., a heuristic that says: if we rely value and appreciate the ideas of a target, then we assume that the target also values and appreciates our ideas). However, this study focused on first impressions after ten minutes of social interactions, so we were unable to examine the link between sense of power and false meta-perceptions in settings where people had longer periods to interact with each other (and thus learn a greater amount about what each other person thinks). Therefore, in this next study, we examined sense of power and false meta-perceptions in established student project teams.

## **Study 2: Method**

### **Participants and Procedure**

We sought to recruit 149 students<sup>4</sup> enrolled in a Master of Business Administration (MBA) program at a university in the United Kingdom in exchange for compensation (£10 or approximately \$12 USD). As part of their module, students were randomly assigned to two streams, of which they were then randomly assigned to one of 30 project teams in which four or five members of the team consulted with an outside company. The response rate was high overall (81%), with only five teams having less than a 50% response rate (in which two out of five team members participated). This resulted in a final sample of 120 students (32 women, 88 men;  $M_{\text{age}} = 29.75$ ,  $SD_{\text{age}} = 2.76$ <sup>5</sup>) spread across 30 teams, which produced 396 observations at the dyadic (perceiver-target) level. We timed the survey at a point when team

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<sup>4</sup> We initially aimed to recruit 150 students, but as 1 student requested to not to be mentioned in the survey, our target sample was reduced to 149 students.

<sup>5</sup> 114 students reported their age.

members had been working together for approximately seven weeks and therefore had ample opportunity to share advice and form regular patterns of advice sharing.

## **Measures**

### *Personal Sense of Power*

Participants completed the same personal sense of power measure as in Study 1 (Anderson et al., 2011;  $\alpha = .88$ ) on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*), but to ensure that we were capturing a person's sense of power relative to their team members, all items contained the stem, "In my interactions with my team members...."

### *Dyadic Meta-Perceptions*

Our study focused on perceived and actual (as reported by the other party in the relationship) ties, so we used the cognitive social structure approach, adapted to perceiver-target ties (Brands, 2013; Krackhardt, 1987). In each survey, we used the roster method (S. P. Borgatti et al., 2018b) and presented participants with a list of their team members. Each participant (called *perceiver*) reported who they believed each of their team members sought advice from in their team. From these responses, our outcome variable was whether the participant reported the belief that a team member went to the participant themselves for advice, which resulted in a dichotomous outcome where 1 = yes, 0 = no. Thus, each perceiver and target reported their meta-perception of whether each team member came to them for advice.

### *Actual Dyadic Perceptions*

We measured actual dyadic advice perceptions by asking participants to indicate who they went to for advice in their team. Specifically, we asked each participant: "Whom do you go to for help or advice if you have a question or problem? Such help or advice might include assistance on a course assignment, copies of notes from classes you may have missed, career consultations, or other things." From these responses, we then identified if participants

reported going to their team members for advice, which resulted in a dichotomous outcome where 1 = yes, 0 = no. Thus, each perceiver and target reported their perceptions of which team members went to each other for advice.

### **Analytic Approach**

Individuals rated their team members in this round-robin design. Ratings could be similar to one another (and thus violate the assumption of independent observations required for least squares regression tests) due to ratings coming from the same stream, same team, the same perceiver, the same target, and/or the same perceiver-target pair (dyad). To examine the extent to which such non-independence was present in our data, we ran null, intercept-only models where we entered each potential source of non-independence as a sole predictor in separate models. Findings revealed that a significant amount of variability could be attributed to differences between perceivers (approximately 76%), targets (approximately 76%), and teams being rated (approximately 9%), with cohort stream and dyadic effects having no explanatory variance (less than 1% respectively). Thus, we estimated cross-classified logistic regression models, such that perceiver and target effects are specified as cross-classified effects nested under team effects, to account for both non-independent observations and the hierarchical structure of our data (Beretvas, 2010; Claus et al., 2020). False meta-perceptions are said to occur when our predictor (a personal sense of power) explains significant variance in perceiver dyadic meta-perceptions that a target relies on them for advice, controlling for the variability that can be explained by actual dyadic advice perceptions from the target (i.e., target reports going to the perceiver for advice). To account for interdependent effects occurring within each dyad, we also controlled for the target's meta-perception towards the perceiver, and the perceiver's actual perception toward the target. Analyses were conducted using Stata 18.0.

## Results

The descriptive statistics and correlations for study variables are shown in Table 3.3. The results of the model shown in Table 3.4, Model 1 show that participants with a higher personal sense of power tended to perceive that team members sought their advice,  $b = 1.38$ , 95% CI [.56, 2.20],  $p = .001$ , which occurred above and beyond whether team members actually sought the participant's advice,  $b = 1.21$ , 95% CI [.39, 2.02],  $p = .004$ . This result indicates that, at the dyadic level, the more powerful tend to feel, the more likely they are to believe that others come to them for advice, above and beyond whether other people actually go to them for advice.

Second, we tested whether this link between sense of power and false meta-perceptions stemmed from reliance on the assumed reciprocity heuristic. To do so, we interacted feelings of power with perceptions that the *perceiver* relied on the *target* for advice. If power increases the likelihood the perceiver relies on the assumed reciprocity heuristic (i.e., "If I rely on this person for advice, they also rely on me for advice") to form advice meta-perceptions, then we should see that at higher levels of feeling powerful, there should be a stronger relationship between feelings of power and perceptions that the perceiver relies on the target for advice in predicting whether the perceiver falsely believes the target relies on the perceiver for advice. However, as shown in Table 3.4, Model 2, we did not observe a significant interaction effect between sense of power and the perceiver relying on the target for advice in predicting whether the perceiver believes the target relies on the perceiver for advice,  $b = .98$ ,  $SE = .56$ ,  $p = .082$ , 95% CI [-.12, 2.08].

**Table 3.3***Study 2: Descriptive Statistics: Means, SDs, and Correlations*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4
1. Sense of power	5.06	.88				
2. Perceiver's advice meta-perception	.40	.49	.28***			
3. Target's advice perception	.46	.50	.13*	.11*		
4. Perceiver's advice perception	.46	.50	.03	.31***	-.04	
5. Target's advice meta-perception	.40	.49	.05	-.04	.31***	.11*

Note: *N* = 396 observations, 120 participants.\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ **Table 3.4***Study 2: Cross-Classified Logistic Regression Analyses Predicting Advice Meta-Perceptions*

Variable	Model 1		Model 2	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Intercept	-9.14***	2.26	-6.90**	2.86
Perceiver's advice perception	2.27***	.45	-2.74	2.87
Target's advice perception	1.21**	.42	1.29**	.43
Target's advice meta-perception	-.88*	.42	-.94*	.44
Sense of power	1.38**	.42	.94*	.47
Sense of power X Perceiver's advice perception			.98	.56
Log Likelihood	-190.14		-188.64	
<i>N</i>	396		396	

Note: *N* = 396 observations in 30 teams. Unstandardized coefficients and robust standard errors are reported.\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ 

## Discussion

These results provide further support for the link between feeling powerful and false meta-perceptions. However, this study focused on a single point in time, so we were not able to test how power and false dyadic meta-perceptions may affect the way individuals behave and think about others over time. Therefore, we conducted a four-wave longitudinal study of a student cohort in which we could examine the changing dynamics among a perceiver's sense of power, the perceiver's false meta-perceptions, and the actual perceptions of advice seeking across time.



## Study 3: Method

### Participants and Procedure

We studied a cohort of 195 participants (95 female, 74 male, 26 unknown;  $M_{\text{age}} = 22.85$ ,  $SD = 2.01^6$ ) who were enrolled in a management graduate degree program at a university in the United Kingdom. Using a longitudinal design, we measured sense of power, advice seeking meta-perceptions, and actual perceptions of advice seeking perceptions across four time points spanning approximately 20 weeks. At each time point, we asked participants to report the extent to which they felt powerful, as well as to whom they went to for advice and whom they think came to them for advice (i.e., their meta-perceptions). We present an overview of the response rates for each wave in Table 3.5.

**Table 3.5**

*Study 3: Overview of Sample Response Information across Time Wave*

Wave	Survey Response Period	Sample Size	Measurements
1	12/10/2021-27/11/2021	170/195(87%)	Sense of Power, Advice Perceptions, Demographics
2	7/12/2021-25/01/2022	139/195 (71%)	Sense of Power, Advice Perceptions
3	11/01/2022-08/03/2022	161/195(83%)	Sense of Power, Advice Perceptions
4	24/04/2022-17/05/2022	142/195 (73%)	Sense of Power, Advice Perceptions

### Measures

#### *Personal Sense of Power*

At each of the four time points, we asked participants to complete the same sense of power measure as in Study 1, but each item contained the prefix, “In my relationships with others students in my program pathway...”. The internal consistency of these measures across the four measurement periods ranged from .66 to .82. Because power can vary across time and interaction partners (Anderson et al., 2012; Smith & Hofmann, 2016), this measure

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<sup>6</sup> Age and gender were only available for 170 participants because these data were only collected at wave 1.

allowed us to examine these changes in our analyses.

### *Dyadic Advice Meta-Perceptions*

We adopted the roster method for assessing dyadic advice meta-perceptions and advice seeking perceptions (S. P. Borgatti et al., 2018b). In this method, perceivers are presented with a full list of their classmates on the screen. We asked, “We would like you to think about the people who believe *you* give them solicited advice. That is, who do you think believes you give them advice when they ask for it?” We coded these dyadic advice meta-perceptions as 1 = yes, 0 = no. We focused on solicited advice relations following research indicating that solicited advice, relative to unsolicited advice, is more consequential (Landis et al., 2022).

### *Actual Dyadic Advice Seeking Perceptions*

We captured actual advice perceptions by asking, “Please think about the people who give you solicited advice. That is, when you ask for it, do they give you advice?” We coded actual advice perceptions as 1 = yes, 0 = no. We defined an advice seeking perception as existing if the focal person believed it existed (Brands, 2013). This perception served as our measure of the actual advice perceptions for each dyad – i.e., whether each student actually sought advice from another classmate in the cohort.

### **Analytic Approach**

For each perceiver-target dyad, we created two separate network adjacency matrices to capture (a) advice meta-perceptions (e.g. if Bob thinks John relies on Bob for advice), and (b) actual advice perceptions (e.g. if John reports going to Bob for advice). For the advice meta-perception network matrix  $g$ , a value of 1 is given if a perceiver  $i$  reports a target  $j$  seeking advice from them (and 0 otherwise). For the advice perception network matrix  $s$ , a value of 1 is given if a perceiver  $i$  reports seeking advice from a target  $j$  (and 0 otherwise). If all perceptions are correct, then all  $s_{ij} = g_{ij}$  ( $s = g^T$ ).

Such data, however, present an important challenge: The observations are not independent of each other. For instance, *i* asking *j* for advice is not independent from *j* asking *i* for advice. Further, numerous other well-documented dependencies exist (Block, 2015; Davis, 1970; Snijders et al., 2010; Veenstra et al., 2013), such as the probability that *i* asks *j* for advice might change if *i* also asks *k* for advice who is asking *j* for advice (i.e., a transitive advice relationship exists). Yet, independence is a core assumption of the generalized linear model, and these dependencies, that is, the dyadic meta-perceptions and actual dyadic perceptions, are themselves at the heart of our study. Thus, any method removing the dependencies would naturally also remove or distort what we set out to study. Moreover, the dependencies between the perceptions themselves are of interest to us.

Because a person's sense of power, advice meta-perceptions, and actual advice perceptions can all affect each other, we require a multivariate method that is able to model changes in the networks that are formed by actual advice seeking and advice meta-perceptions, as well as model changes in self-reported sense of power. Therefore, we used the stochastic actor-oriented model (SAOM; Snijders, 1996, 2017; Snijders et al., 2010; Steglich et al., 2010) to analyze the changing dynamics simultaneously in all three of our dependent variables.

Stochastic actor-oriented models have proven to be useful in examining the complex interplay among changing variables over time, such as the co-development of extraversion and friendships (van Zalk et al., 2020), the interpersonal transmission of stress across expressive networks (Li et al., 2023), and dynamics of who perceives whom as an informal leader over time (Landis et al., 2022). Although the social psychology literature is beginning to see a greater use of these models, we present a short overview here (for a more detailed introduction, see Kalish, 2020; Snijders, 2017; Snijders et al., 2010). First, the dependent variables in our model are the entire network adjacency matrices, in our case *S* and *G*, formed

by all self-reported advice relations and meta-perceptions. Second, the SAOM assumes that the observed changes in a network (or an attribute) between two time points can be separated into a series of smallest possible unobserved changes, so called mini-steps, that happened between two observations in continuous time (e.g., first  $i$  asks  $k$  for advice, then  $k$  asks  $j$ , then  $i$  asks  $k$ ; likewise, a person whose sense of power changes from 2 to 4 between observations first increased their advice perception from 2 to 3 and then from 3 to 4). More specifically, the model assumes that only one action is taken by one person at any given time, a person cannot change two ties at once, or change one tie in both networks. Finally, a core assumption is that people (the nodes in the network) have agency about their decision to seek advice, about their meta-perceptions, and that their sense of power lies within them.

Relying on these assumptions, the SAOM creates sequences of mini-steps that could have created the observed change in the network. It does so by splitting the evolution into two processes, each modeled by their own function. The first process is the rate function, which decides who becomes active in the model according to a Poisson distribution. Here, like most SAOM studies, we assume a constant rate, that is everybody has the same probability to make changes in their advice seeking and advice perceptions. The second process is the objective function, which decides which action is taken by the person chosen by the rate function using a multinomial choice model. Our hypotheses are operationalized here. In our case, the model has three competing rate functions, one for each of the dependent variables (advice seeking, advice meta-perceptions, and sense of power) and likewise three objective functions, one for each dependent variable.

The results presented below can be interpreted as multinomial logistic regression parameters: Positive parameters mean that ties that increase the statistic associated with the

parameter are more likely to be created or maintained<sup>7</sup> (e.g. a positive effect of perceivers' power makes it more likely that an advice seeking tie  $s_{ij} = 1$  is formed for people with higher power, and makes it less likely that those with higher power break an existing advice tie  $s_{ij} = 1$ ).

An additional advantage of the SAOM by virtue of being a continuous time model is that mediation pathways are directly modeled. While conventional mediation models only model influence in one direction (the independent variable first influences the mediator and then the mediator influences the outcome), continuous time models can include all bi-variate influence processes. Further, by modeling these processes unfolding over time, any process automatically mediates for any other. Mediation does not need to be directly modeled (as it would in a conventional mediation model) because any indirect effect is automatically captured by the continuous nature of the model. This enables us to make stronger inferences about the temporal causality between our variables of interest (Steglich et al., 2010), and facilitate interpretations of any mediation pathways happening.

Like a regular (generalized) linear model, the SAOM assumes that all parameters apply equally to everyone, given their attributes and network position. Further, the model is estimated over all four waves, that is all three periods of change (wave 1 to wave 2, wave 2 to wave 3, wave 3 to wave 4), assuming homogeneity of parameters across time, with a few exceptions as detailed in the note of Table 3.7.

## Results

### Does Power Lead to False Meta-Perceptions?

The descriptive statistics and correlations among study variables are shown in Table 3.6. Table 3.7 presents our SAOM model results. For simplicity, Table 3.7 only presents

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<sup>7</sup> By default, maintaining ties and creating ties are modelled by the same function. The model, however, allows for separate specifications for the creation and maintenance of ties (e.g., Landis et al., 2022).

parameter estimates pertaining to the effects of sense of power on advice seeking and advice meta-perceptions, and the effects of advice seeking and meta-perception on power. The full model results are reported in Appendix 3.1 Table A3.1. We also tested for the influence of the reciprocity heuristic on advice meta-perceptions in a separate model and rule it out as an alternative explanation, which is reported in Appendix 3.1, Table A3.2.

First, we tested for how sense of power predicted false dyadic advice meta-perceptions. We found that individuals who feel a greater sense of power perceived more people as coming to them for advice,  $b = .66, p < .001$ , even though others were not likely to report coming to these powerful individuals for advice,  $b = .03, p = .739$ . These results replicate the finding that individuals who feel powerful are falsely perceiving others as coming to them for advice when they actually do not.

## **Consequences of Advice Meta-Perceptions over Time**

### *Network Coevolution*

We reasoned that as individuals develop false dyadic advice meta-perceptions as a result of feeling powerful, they are likely to feel more powerful subsequently. If this was the case, we would expect to see that the outdegree centrality of a perceiver's advice meta-perceptions – that is, the number of people a perceiver reports having an advice meta-perception about, should positively predict the perceiver's sense of power. As shown in Table 3.7, we do not find support for this hypothesis: An individual's number of false advice meta-perceptions did not significantly predict an individual's sense of power,  $b = 0.11, p = .397$ .

### *Self-Fulfilling Prophecy*

If a self-fulfilling prophecy is at work, when individuals develop false dyadic advice meta-perceptions as a result of feeling powerful, they are likely to actually provide advice to others whom they falsely perceive as seeking advice from them. If this occurs, we would expect that others would report coming to them for advice over time. As the model's

dependent variables are focused on the perceiver going to others for advice (self-reported advice), we approached this question by considering how a target's perceptions of advice predicted the perceiver's advice seeking behavior. We would expect to see that the number of target's advice meta-perceptions would predict an increased likelihood of the specific perceiver seeking advice from the target. As shown in Table 3.7, we did not find evidence for a self-fulfilling prophecy: When individuals falsely perceived others as coming to them for advice, those others were not likely to go to these individuals for advice,  $b = 0.76$ ,  $p = .342$ .

#### *Eroding Social Barriers*

Finally, we predicted that as a potential consequence of developing false dyadic advice meta-perceptions, individuals would be more likely to seek advice from others over time. If this was the case, we would expect to see that the number of perceiver's advice meta-perceptions should increase the likelihood of the perceiver seeking advice from those who the perceiver formed an advice meta-perception. We find that as individuals perceive others as coming to themselves for advice, this subsequently leads to more advice seeking,  $b = 2.78$ ,  $p < .001$ . Thus, we find support for this hypothesis.

**Table 3.6***Study 3: Descriptive Statistics: Means, SDs, and Correlations*

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. Sense of Power (T1)	170	3.62	0.54											
2. Sense of Power (T2)	139	3.66	0.57	.63***										
3. Sense of Power (T3)	160	3.67	0.52	.57***	.65***									
4. Sense of Power (T4)	142	3.62	0.64	.44***	.59***	.63***								
5. Advice Meta-perception (T1)	170			.16*	.14	.04	.07							
		2.09	3.52											
6. Advice Meta-perception (T2)	139			.21*	.22**	.18*	.20*	.83**						
		2.73	4.89											
7. Advice Meta-perception (T3)	161			.10	.25**	.21**	.23**	.53***	.62***					
		2.26	2.82											
8. Advice Meta-perception (T4)	142			.13	.14	.21*	.22**	.22**	.29**	.59***				
		1.78	2.36											
9. Advice Seeking (T1)	170	2.74	6.98	.14	.02	-.04	-.00	.39***	.28**	.22**	.06			
10. Advice Seeking (T2)	139	2.94	4.29	.09	.16	.08	.11	.69***	.83***	.62***	.22*	.27**		
11. Advice Seeking (T3)	161	2.42	2.99	.01	.12	.12	.17	.29**	.38***	.83***	.53***	.20*	.51***	
12. Advice Seeking (T4)	142	2.24	3.31	-.06	-.07	.06	.10	.12	.20*	.41***	.62***	.06	.28**	.60***

Note. Observation frequency varies by variable due to different response rates in each timepoint.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$



**Table 3.7**

*Study 3: Stochastic Actor-Oriented Modelling on Consequences of Power and Advice Meta-perceptions over Time*

Parameter	Perceiver Advice Seeking		Perceiver Meta-perception	
	Estimate	SE	Estimate	SE
Power – perceiver	-.33**	.11	.66***	.20
Power – target	.03	.09	-.13	.12
Power – perceiver x power - target	-.23	.19	-.06	.32
Perceiver meta-perception	2.78***	.33		
Target meta-perception	.76	.80		
Perceiver advice seeking			3.16***	.46
Target advice seeking			1.52	.90

Parameter	Perceiver Sense of Power	
	Estimate	SE
Indegree in perceiver advice seeking	.08	.09
Outdegree in perceiver advice seeking	-.03	.11
Outdegree in perceiver meta-perception	.11	.13
Gender	.05	.27

*Note.* All convergence t-ratios <.07. Overall maximum convergence ratio = .17. The ‘*power – perceiver*’ effect captures the perceiver’s sense of power. The ‘*power – target*’ effect captures the target’s sense of power. The ‘*power-perceiver X power-target*’ effect is the interaction between the perceiver’s sense of power and the target’s sense of power. The ‘*perceiver meta-perception*’ effect captures the perceiver perceiving a specific target as seeking the perceiver for advice. The ‘*target meta-perception*’ effect captures the target perceiving a specific perceiver as seeking the target for advice. The ‘*perceiver advice seeking*’ effect captures the perceiver seeking advice from the perceiver. The ‘*target advice seeking*’ effect captures the target seeking advice from the perceiver. The ‘*indegree in perceiver advice seeking*’ effect models the sum of people seeking advice from the perceiver. The ‘*outdegree in perceiver advice seeking*’ effect models the sum of people the perceiver seeks advice from. The ‘*outdegree in perceiver meta-perception*’ effect models the sum of people the perceiver perceives as coming to them for advice. The ‘*gender*’ parameter models gender differences. This table only includes the parameter estimates and standard errors pertaining only to the effects of power on advice seeking and meta-perception, and the effects of advice seeking and meta-perception on power. The full model and detailed explanation of how each parameter was calculated can be found in Appendix 3. Goodness-of-fit with regards to indegree- and outdegree distributions as well as the triad census for each network and period separately was sufficient (at least  $p > .01$  and above .05 for nearly all networks and periods).

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

## Discussion

In this study, we employed a stochastic actor-oriented model and conceptually replicated Study 1 and 2's findings that having a sense of power predicts false advice meta-perceptions, and ruled out self-projection bias as an alternative explanation for why power may predict false advice meta-perceptions. Further, we were able to account for mutual influence processes, network dependencies, and the non-independence of observations in providing a test of the consequences of developing false meta-perceptions over time. Table 3.8 provides a summary of support for our three proposed consequences of dyadic advice meta-perceptions over time.

First, we find no support for a network coevolution process, as false advice meta-perceptions were not likely to increase an individual's sense of power. Second, we did not find support for the idea of a self-fulfilling prophecy, as the people for whom an individual developed a false advice meta-perception about were not likely to seek the individual for advice. However, we found strong support for the notion that a perceiver's false advice meta-perceptions are likely to prompt the perceiver to seek advice from those they perceive as coming to them from advice. Taking these findings together, we see support for an overall mediation effect: Though feeling powerful makes it initially less likely for an individual to seek advice from other individuals in their network, we observe a mediating effect of false meta-perceptions, such that feeling powerful will lead the individual to form false meta-perceptions about other specific individuals, which leads them to seek advice from them over time. Thus, false meta-perceptions erode the initial reluctance by those who feel powerful to seek advice.

**Table 3.8***Study 3: Comparison of Results on the Consequences of Advice Meta-perceptions Over Time*

Hypothesis	Proposition	Supported?
Network Coevolution	There is a positive cyclical effect between power and advice meta-perceptions.	No
Self-fulfilling Prophecy	Power leads to advice meta-perceptions, which leads to others reporting that they go to the meta-perceiver for advice.	No
Eroding Social Barriers	Power leads to advice meta-perceptions, which leads to the meta-perceiver going to specific individuals for advice.	Yes

### General Discussion

Meta-perceptions of idea and advice relationships help us navigate a variety of important social interactions, but how do they form, and what are their consequences? We suggested that a personal sense of power plays a role in forming inaccurate dyadic meta-perceptions of idea and advice relationships. We also posited three potential consequences of false meta-perceptions over time: a network coevolution process in which a personal sense of power and false meta-perceptions mutually influence each other over time, a self-fulfilling prophecy process in which false meta-perceptions lead to the creation of an actual advice seeking relationship, and an eroding social barriers process in which a personal sense of power is associated with reduced advice seeking at first, but then greater advice seeking over time because of the (false) meta-perception that others already come to us for advice. Using a stochastic actor-oriented modelling approach (Snijders, 1996, 2017) that is suited to handling longitudinal data, we found that inaccurate relationship meta-perceptions can be beneficial. False advice meta-perceptions, over time, increased the likelihood that individuals seek out advice from others. Thus, whereas our basic intuitions would suggest that inaccurate meta-perceptions are a bad thing, we present evidence showing that, in this case, they can be a blessing in disguise.

## **Relationship Meta-Perceptions over Time**

Whereas prior work has primarily studied meta-perceptions of relationships at a single point in time (Brion & Anderson, 2013; Campagna et al., 2020; Marineau et al., 2018), we have explored the important role of time. Time plays a meaningful role in how meta-perceivers navigate their relationships with others. Indeed, as people interact with each other, they are likely to update their impressions and thereafter their meta-perceptions about what each other thinks. By using a stochastic modeling approach, we found that the formation of advice meta-perceptions account for subsequent changes to the way meta-perceivers approached their advice relationships with others. These findings shed new light on treating meta-perceptions as a dynamic entity rather than as a static, one-time perception, and that relationship meta-perceptions are likely to have enduring effects on the way individuals behave in their relationships with others.

Second, time also plays a role in what we have learned about power and advice seeking. Previous research highlights the social costs of asking for advice: It might imply that a person lacks knowledge or is incompetent. Those who feel powerful, relative to others, may be especially reluctant to incur these reputational costs by asking for advice (See et al., 2011; Tost et al., 2012), due to the risk of hurting their status (Flynn et al., 2006). Our findings serve to reveal that when individuals falsely perceive others rely on their ideas and advice, these inaccurate perceptions reduce the perceived psychological barriers they may have in approaching others for advice. Meta-perceptions and time are important here: Whereas the powerful may be initially reluctant to seek advice in social interactions, over time (due to their inaccurate meta-perceptions), the social barriers to seeking advice are eroded. The key insight here is that considering the role of time sheds new light on the complex dynamics among people's sense of power, meta-perceptions, and advice seeking.

## **Cognitive Explanations of Power and Meta-Perceptions**

This research provides a direct test of the heuristic explanations for why a personal sense of power relates to inaccurate meta-perceptions. According to the view of power and heuristic thinking (i.e., Keltner et al., 2003), people with a higher personal sense of power are likely to rely on heuristics to form meta-perceptions. If true, then we should see that when people claim a relationship with another person, they should also be more likely to believe that the other person reciprocates the relationship (the balance or reciprocity principle; Heider, 1958). In two tests of this idea, however, we did not find support.

Instead, our findings may suggest an alternative cognitive explanation that relies on self-projection. People are known to use their own self-views (i.e., what they are like as people) to form judgments of what others think (Kenny, 2020). A personal sense of power is likely to anchor the person's own vantage point over the vantage point of others (Galinsky et al., 2006). Here, we suggest that the association between a personal sense of power and inaccurate meta-perceptions is due to those with a higher personal sense of power projecting their own self-views ("I am influential") onto their meta-perceptions ("This person depends on my advice and values my ideas"). This perspective suggests that a personal sense of power is therefore only likely to affect meta-perceptions of relationships where self-views of power are relevant (e.g., advice), and may be unrelated to meta-perceptions of relationships where viewing oneself as powerful is less relevant (e.g., close friendships).

## **Consequences of Relationship Meta-Perceptions: Network Coevolution, Self-Fulfilling Prophecies, and Eroding Social Barriers to Seeking Advice**

What are the consequences of inaccurate meta-perceptions? The consequences of meta-perceptions have been underexplored (Byron & Landis, 2020; Elsaadawy et al., 2021; Grutterink & Meister, 2022; Kenny, 2020; Tissera et al., 2021), especially, we would add, in

the case of *relationship* meta-perceptions *over time*. We provide empirical tests of three possible ways in which meta-perceptions can affect people (and others) with the passage of time. While research increasingly finds coevolution processes occurring in how individuals form beliefs and enact behaviors (S. Li et al., 2023; van Zalk et al., 2020), we surprisingly did not find support for our prediction where feeling powerful and false meta-perceptions reciprocally influence each other in a positive manner. Why is this the case?

It is plausible that the lack of effects observed were likely due to measurement issues, where individuals were asked to anchor their sense of power as being relative to their whole cohort. This measurement may be answered with greater uncertainty, than in Study 2, where individuals were asked to consider their sense of power in relation to their team members, a set of more proximal and concrete relationships. It is thus possible, that in developing these false meta-perceptions, these cues may not serve to be informative in overcoming the uncertainty held about the power that individuals perceive themselves to have. Alternatively, it is also likely that instead of increasing an individual's sense of power, developing false advice meta-perceptions serve to reinforce the sense of power that they have. False advice meta-perceptions may act as a confirmatory indicator to the individual about their perceived position of power based on what others think of them. This may have meaningful considerations as to how coevolution processes may work in the context of beliefs and actions. While current work has shown that bidirectional influences are likely to lead to positive spirals (van Zalk et al., 2019), our findings seem to open up the possibility for considering how beliefs and actions can bidirectionally influence one another differently. That our findings suggest that a sense of power increases the development of false advice meta-perceptions, but that false advice meta-perceptions does not change but perhaps reaffirms one's sense of power, demonstrate a different pattern of bidirectional influence processes.

Another consequence we sought to test for, the self-fulfilling prophecy process, was not supported by our findings. In alignment with the theory on self-fulfilling prophecy (Merton, 1948; Rosenthal & Jacobson, 1968), we hypothesized that falsely perceiving others as being reliant on the individual for ideas and advice may lead them to act in ways that lead others to actually seek them for advice consequently. However, we failed to find support in this instance, suggesting that either meta-perceivers themselves are not motivated to act upon their meta-perceptions, such that they would provide unsolicited advice, and or that others simply do not see the meta-perceiver as a provider for advice. It is possible that as individuals develop false perceptions of others having sought them out for advice, these imagined interactions may be ingrained as false actions that have already taken place (Garry et al., 1996; Mazzoni & Memon, 2003; Schinoff & Byron, 2022). Thus, there is little to no motivation to provide advice if it has already been sought.

There could also be a Catch-22 situation that individuals face in this situation: even if they would like to provide advice to the people whom they deem to have come to them for advice before, unsolicited advice may be associated with having self-serving motives (Landis et al., 2022), which can be detrimental to the meta-perceiver's reputation. Thus, unless others solicit advice from them first, meta-perceivers might be wary of initiating the provision of advice without being asked for it. However, others are unlikely to change the status quo in the absence of a social signal that it is safe to initiate advice seeking towards the meta-perceiver, when they have not done so before. Thus, it is the development of these illusory meta-perceptions that ironically may hinder the ability of the meta-perceiver to act in ways that facilitate others to deem the meta-perceiver as being safe to seek advice from.

We do however observe support for a consequence of eroding social barriers, such that developing false advice meta-perceptions leads to individuals seeking advice from those they have false meta-perceptions about. This contributes to the idea that having inaccurate

relationship meta-perceptions can be a blessing in disguise. Here, the idea that false relationship meta-perceptions can trigger individuals to take the first step in initiating a relationship with others contributes to our fundamental understanding of when individuals may take the first step to form new relationships with others. Importantly, we see here that this is particularly beneficial in approaching others whom an individual (especially those with a high sense of power) would not approach for advice. However, our findings are unable to account for whether the seeking of advice in this instance would actually be reciprocated. Considering this insight in tandem with the dilemma as to why others seeking advice from the individual holding the false advice meta-perception, an interesting question arises: what would happen when both a meta-perceiver and a target develop false advice meta-perceptions about each other? Future research would do well to examine such occurrences to examine further contextual conditions that accelerate the formation of advice relationships based on perceptual inaccuracies about what others think.

### **Strengths, Limitations and Future Directions**

This research has several notable strengths. We tested for how feeling powerful related to false advice meta-perceptions, and for the consequences of having false advice meta-perceptions over time. We tested for the power-meta-perception effect across settings that varied in people's experience in interacting with one another. We also accounted for causality in two ways: first by testing for feelings of power relative to the meta-perceiver's direct relationship with targets and also as a general state, and second by employing a SAOM approach that accounts for ongoing dependencies in the individual's network. Thus, the use of these complementary designs add confidence in the inferences drawn across these studies.

As in all studies however, this work has several limitations. First, while our research sought to contribute to work on inaccurate relational meta-perceptions, we only documented



the existence of false meta-perceptions. However, neglected relational meta-perceptions (Byron & Landis, 2020), that is, the overlooking of connections that do exist, was not considered in this case. While our paper finds that feeling powerful is likely to trigger false advice meta-perceptions, it remains unclear whether feeling powerful may also trigger neglected advice meta-perceptions, or if individuals in this case may neglect other types of relationships that they have. For instance, it could be the case that as individuals feel powerful, they are likely to distance themselves from others (Lammers et al., 2012; Magee, 2020; Magee & Smith, 2013), which also includes the extent to which they overlook expressive relationships, such as colleagues who provide emotional support at work. While past work demonstrates a potential link to power on inaccurate friendship and negative ties (Marineau et al., 2018), it remains unclear as to whether people are overlooking or falsely perceiving such ties connected to them. Understanding whether or not this effect exists, and how it may impact the way individuals navigate their expressive relationships at work over time may be a worthwhile endeavor.

Second, our studies suggest that individuals are likely to develop false meta-perceptions about others who are in their immediate social environment, such as those who they study with or are working with on projects. However, questions remain as to whether individuals are likely to form false advice meta-perceptions with those who are indirectly connected to them. As we know that individuals are likely to form connections with others based on their perceptions about that individual and what they can provide (Koseoglu et al., 2023), an open question remains as to what target attributes may lead individuals to form false meta-perceptions about them. For instance, while individuals may falsely perceive others as coming to them for advice more than they really do, it is possible that individuals may overlook powerless targets who provide them with advice. Existing research supports this potential explanation, as individuals may feel powerful as they affiliate themselves with

powerful others (Goldstein & Hays, 2011). Having such false perceptions of affiliations with the powerful serves to account for the phenomena of name-dropping at work (Lebherz et al., 2009), but also demonstrates the visibility of powerful targets over those who are powerless. Consequently, this may also yield individuals to form meta-perceptions based on target effects, such as whether those they perceive are powerful or not.

Lastly, in the interest of synthesizing findings across meta-perceptions of traits, attraction, and relationships, future work could explore these different types of meta-perceptions may interact to motivate individual action towards specific targets. For instance, a potential research question explored could be: how does individual meta-perceptions of others liking them influence the way they form how they perceive what others think of their relationships? On the one hand, it could be the case that inaccuracy breeds inaccuracy: individuals who falsely perceive others as liking the individual may falsely perceive others as perceiving the individual as a close friend, or as a trusted other. Or, inaccuracy breeds accuracy: individuals who falsely perceive a specific target as liking the individual may lead individuals to behave in positive ways towards this target. The response of this target may in turn, inform an accurate judgement of what this target thinks about their relationship, thus leading to the formation of accurate meta-perceptions.

We hope our paper will spur further research on the development of relationship meta-perceptions, uncover individual and situational predictors, and meaningful consequences over time. Although we focused on the experience of power, and idea and advice sharing relationships in this paper, we anticipate that understanding when and how inaccurate relationship meta-perceptions matter will be applicable to other domains, such as predicting individual/team outcomes over time, as well as uncovering the value in new work situations, such as social interactions with colleagues in hybrid or remote working environments.

## **Conclusion**

Ideas and advice are a defining feature to our social connections. While we know a great deal on the inaccuracies in inferring what others may think about our personality or their liking towards us, it remains unclear as to how we may inaccurately infer the way others think about our relationships with them, and whether such inaccuracies may be detrimental. Here, we identify how having a sense of power consistently leads to individuals falsely perceiving other individuals relying on them for ideas and advice. We demonstrate how feeling powerful diverts from people's reliance on the reciprocity heuristic, to instead rely on what they think about themselves, an alternative internal pathway, to form their advice meta-perceptions of others. In three studies of idea and advice relationships, we find empirical support for the effects proposed above. In testing for potential consequences of having false advice meta-perceptions, we find marginal support that individuals may feel more powerful, no support for leading others to seek advice from the individual, and strong support for individuals to see advice from those who they falsely perceive as relying on them for advice. As such, we provide a full account of how a sense of power influences the formation of inaccurate idea and advice meta-perceptions, and that these inaccurate relationship meta-perceptions can serve to be a blessing in disguise.

## **CHAPTER 4**

### **Establishing the interpersonal consequences of idea evaluation:**

#### **Failing to recognize creative ideas reduces employee trust in decision-makers**

Creativity, the generation of novel and useful ideas (Amabile, 1982), is important for organizations because it is a critical driver of innovation, competitive advantage, and profit (Woodman et al., 1993). The process that a creative idea goes through to become an organizational innovation is most often a social one (Goncalo & Katz, 2020; Mannucci & Perry-Smith, 2022; Perry-Smith, 2006; Perry-Smith & Mannucci, 2017), in which an idea is first generated by one person but is then evaluated by another person before potentially continuing on the path to becoming an innovation. Idea evaluation is typically done by a decision-maker who has the power to decide whether the idea is creative and worthy of further research, investment, and ultimately implementation or not (Mueller et al., 2018). While organizations espouse the desire for creative ideas, mounting evidence shows that decision-makers in organizations have difficulty recognizing creative ideas because of an inherent bias against novelty, and thus are more likely to reject a creative idea than to encourage further development (Lee et al., 2017; Mueller et al., 2012, 2014, 2018).

While there is research on the antecedents of decision-makers' failure to recognize creative ideas (c.f. Mueller & Yin, 2021; Rietzschel et al., 2019; Zhou et al., 2019 for reviews), little is known about the interpersonal consequences for the decision-maker who fails to recognize a creative idea. Specifically, research has yet to explore how failing to recognize a creative idea affects the relationships between decision-makers and their subordinates. The development of creative ideas is often an iterative process with creators and decision-makers building a long-term relationship (Harrison & Rouse, 2015; Rouse, 2020). Therefore, failing to recognize a creative idea might be detrimental to and even destroy the relationships that decision-makers have with others at work.

We seek to explore this critical part of the creative process by showing how a core component of creative idea recognition – the decision-maker’s labelling of an idea as creative or uncreative – shapes the relationship they have with an idea creator and others on their team. We propose that labelling an idea as uncreative leads to lower trust in the decision-maker, as compared to labelling an idea as creative. Furthermore, we theorize that this effect applies specifically to creative ideas but not to uncreative ideas. We propose that labelling a creative idea as uncreative – *the explicit failure to recognize a creative idea as creative* – will lead to lower trust in the decision-maker, as compared to when decision-makers recognize a creative idea as creative. The reason we expect this effect to happen is because others (the idea creator and others on the team) attribute the decision-maker’s failure to recognize a creative idea to the decision-maker’s incompetence and lack of warmth.

This work contributes to creativity research in two important ways. First, we contribute to the literature on the bias against novelty (Harvey & Mueller, 2021; Mueller et al., 2012; Mueller et al., 2014; Mueller et al., 2018; Lu et al., 2018; Yang et al., 2023). The research to date has established that decision-makers fail to recognize creative ideas due to the bias against novelty as well as when and why it occurs, and has started to address how to overcome it. While this research addresses the antecedents, to our knowledge, there are only three known consequences: reduced innovation (Criscuolo et al., 2017; Ferguson & Carnabuci, 2017; Piezunka & Dahlander, 2015), reduced creative self-efficacy in the idea creator, and consequently reduced creative output (Ng et al., 2022). We add to this nascent literature on the consequences of biases against novelty by showing, for the first time, that there are unintentional, negative, interpersonal consequences of rejecting creative ideas. In particular, we demonstrate that failing to recognize a creative idea negatively affects the relationships between a decision-maker and their team members as team members lose trust in the decision-maker. This has crucial implications for decision-makers, as losing their team

member's trust in them not only affects the quality of their relationships (Dirks & Ferrin, 2002; Dulebohn et al., 2012; Martin et al., 2016), but also affects how their team members are likely to perform at work (Breuer et al., 2016; Colquitt et al., 2007; Dirks & De Jong, 2022; A. Lee et al., 2018).

Second, we contribute to the emerging literature on the consequences of being engaged in the idea journey (Khessina et al., 2018; Lua et al., 2023). Research on interpersonal judgments in the creative process have largely focused on how the creatives are judged – i.e. the individuals who are perceived to have creative potential, or who actually generate creative ideas (Carnevale et al., 2021; Katz et al., 2022; Koseoglu et al., 2023; Mueller et al., 2011; Proudfoot et al., 2015). Yet, this line of research neglects to consider what interpersonal judgments may be made about other stakeholders who can also be heavily involved in the idea journey, such as decision-makers who evaluate ideas. Our findings pave the way for a new stream of research and provide initial evidence on the type of interpersonal judgments (competence and warmth) and attitudes (trust) that employees form about decision-makers based on the foundational component of evaluation – the recognition of an idea's creativity. We introduce *creative idea labelling* to explain how explicitly failing to recognize an idea's creativity *in the presence of others*, serves as a meaningful social signal to trigger interpersonal judgements to affect relational dynamics that decision-makers have with others at work.

## **Theoretical Background**

### **Trust is Important for Idea Evaluation**

Trust, defined as a person's willingness "to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (Mayer et al., 1995,

p. 712), is well established as an integral part of the facilitation and maintenance of social relationships (Burke et al., 2007; Clegg et al., 2002; Dirks & Ferrin, 2002). Given that a creative idea's journey from inception to innovation is a social process (Perry-Smith & Mannucci, 2017) in which many people are involved. These include but are not limited to: decision-makers (Mueller et al., 2018), the idea creator (Harrison & Rouse, 2015; Toivonen et al., 2022; Zhou et al., 2022), third-party stakeholders such as team members (Harvey & Kou, 2013; Harvey & Mueller, 2021), the audience for which the ideas are (Berg, 2016; Falchetti et al., 2022), and other decision-makers such as investors (Mitteness et al., 2012). Trust among all these different stakeholders involved is paramount for a smooth idea journey. For example, decision-makers need others' trust to help facilitate the development of ideas. In particular, when the evaluation process transitions to the next stage in the idea journey, the decision-maker is likely to involve other stakeholders to put in effort and resources (Perry-Smith & Mannucci, 2017). For instance, the decision-maker needs to get the creator or others on the team to acknowledge and use the developmental suggestions provided to help develop the idea further. In order to ensure others are willing to incorporate the evaluations and other decisions that decision-makers make as part of the evaluation process or thereafter in subsequent implementation stages (Choi et al., 2014; Kim et al., 2022; Ni & Zheng, 2023), trust is needed to act as a "social lubricant that promotes cooperation," which might not otherwise occur (Higgins & Kruglanski, 2007, p. 587).

### **Creative Idea Recognition Failure Stifles Trust: The Role of Competence and Warmth**

We argue that labelling a creative idea as creative or uncreative forms attributions about a decision-maker's competence and warmth, which, in turn, affects how trustworthy the decision-maker is perceived to be. According to the Stereotype Content Model (Cuddy et al., 2008), competence and warmth serve as two broad evaluative dimensions that individuals

use to form interpersonal judgments. Within the idea evaluation context, determining how competent and warm a decision-maker is allows perceivers to determine if decision-makers can be trusted to enact the ideas shared with them, and without fear of harmful criticism and rejection, which undoubtedly can be a source of anxiety for people sharing ideas (Kim et al., 2023). While these two dimensions of interpersonal judgments may be intertwined when comparing two individuals or groups (e.g., low competence judgments tend to be accompanied by high warmth judgments, or low warmth judgements tend to be accompanied by high competence judgements), it has been suggested that for “the judgment of behaviors or traits, it seems less likely that a compensatory motive ought to operate.” (Judd et al., 2005, p. 910). When assessing a single individual, it is thus possible that there may be meaningfully separate reasons as to why an individual may be judged on both dimensions (Yzerbyt et al., 2008, p. 1113). Accordingly, we suggest that perceivers may decompose the decision-maker’s idea labelling in several ways that separately lead to attributions of competence and warmth. But overall, we theorize that when creative ideas are not recognized, the competence and warmth of the decision-maker will suffer, which in turn leads to lower trust.

First, we suggest that creative idea labelling serves as a social cue for perceivers to form attributions about a decision-maker’s competence, defined as the degree to which a person has the technical and interpersonal skills required for their job (Butler & Cantrell, 1984; Kim et al., 2006). Given that organizations explicitly want creative ideas from their employees (Manly et al., 2023; PWC, 2017), employees are likely to expect decision-makers to be competent in recognizing creative ideas. After all, if someone holds a decision-making role in an organization, they presumably have the skills to perform that role adequately. Failing to perform by failing to recognize a creative idea might thus lower others’ view of the decision-maker as being competent. According to the schematic model of dispositional attribution, a single demonstration of incompetence can be attributed to different causes



including a momentary lapse in competence (Reeder & Brewer, 1979), and thus we would not expect decision-makers to be viewed as completely incompetent, just less competent than decision-makers who do recognize creative ideas. In sum, we expect that both the idea creator as well as others on the team, have lowered perception of the decision-maker's competence when the decision-maker fails to recognize a creative idea.

Second, we suggest that idea labelling serves as a social cue for perceivers to form attributions about a decision-maker's warmth, defined as whether decision-makers are seen as friendly, sincere, or good-natured (Cuddy et al., 2008). Idea creators experience strong psychological ownership over their ideas (Baer & Brown, 2012; Gray et al., 2020; Rouse, 2013) and tend to strongly believe that their ideas are creative (Berg, 2016). Thus, sharing such ideas, which is experienced as an intimate form of self-disclosure (Goncalo & Katz, 2020), is undoubtedly a source of anxiety due to the fear of harmful criticism and rejection (Kim et al., 2023). In fact, being told by a decision-maker that one's idea is not creative in a context in which creative ideas are asked for is synonymous with rejection and rejection feels cold (Zhong & Leonardelli, 2008), and lowers one's self-esteem (Gerber & Wheeler, 2009). Consequently, announcing in front of the entire team that one team member's idea is not creative will likely make the decision-maker seem to be lacking warmth. In sum, we expect that decision-makers will be viewed as less competent and less warm when they fail to recognize an idea's creativity in comparison to when they recognize an idea's creativity.

After determining how much competence and warmth a decision-maker has, individuals form beliefs about how much they can trust the decision-maker. While research on interpersonal perceptions have broadly debated about the interrelatedness of warmth and trust (Kervyn et al., 2015; Leach et al., 2007), we distinguish these variables based on theoretical perspectives that forming attributions about a target's characteristics (perception) is what enables the formation of trust in the target (attitude) (Dirks & Ferrin, 2002; Schindler

& Thomas, 1993). We argue that the perception of a decision-maker's characteristics will lead individuals to form or update their beliefs about whether the decision-maker is trustworthy or not. Specifically, as decision-makers fail to recognize a creative idea, employees are likely to form lower levels of trust in them because of the lesser level of competence and warmth attributed to the decision-maker, relative to decision-makers who do recognize a creative idea.

### **The moderating effect of idea creativity**

Importantly, we only expect there to be an effect of failure to recognize a creative idea on trust via competence and warmth for ideas that are creative but not for ideas that are uncreative (Figure 4.1 depicts our theoretical model). Specifically, when perceivers (such as others on a team) witness the decision-maker's failure to recognize a team member's creative idea, the idea needs to be widely viewed as creative. This leads perceivers to be likely to think that the decision-maker is either incompetent for not recognizing what they are able to recognize or has some other potential personal reason why they are rejecting a team member's idea and thus is lacking warmth, both of which would result in reduced trust. When the idea seems objectively uncreative (or in other words, conventional and sticks to the status quo), however, we would not expect such a difference, because these ideas are not as valuable for innovation purposes, and thus recognizing or failing to recognize them is of lesser concern.

For idea creators, their own idea does not need to be objectively creative. Instead, given how anxiety provoking sharing one's idea is (Kim et al., 2023), idea creators tend to only share an idea that they strongly believe is novel and useful but might not be widely viewed as such (Goncalo & Katz, 2020). However, the strong belief in their own idea's creativity leads them to attribute incompetence and lack of warmth to the decision-maker and

consequently they trust the decision-maker less when the decision-maker fails to recognize the creativity in their idea. If idea creators believe less strongly in their idea, we expect this effect to be attenuated. However, research shows that idea creators who were asked to generate creative ideas tend to rate their ideas above the midpoint on a creativity scale and thus it is rather rare that someone rates their own idea as uncreative (Goncalo & Katz, 2020). Consequently, we only expect an attenuation of the effect but it will likely not go away.

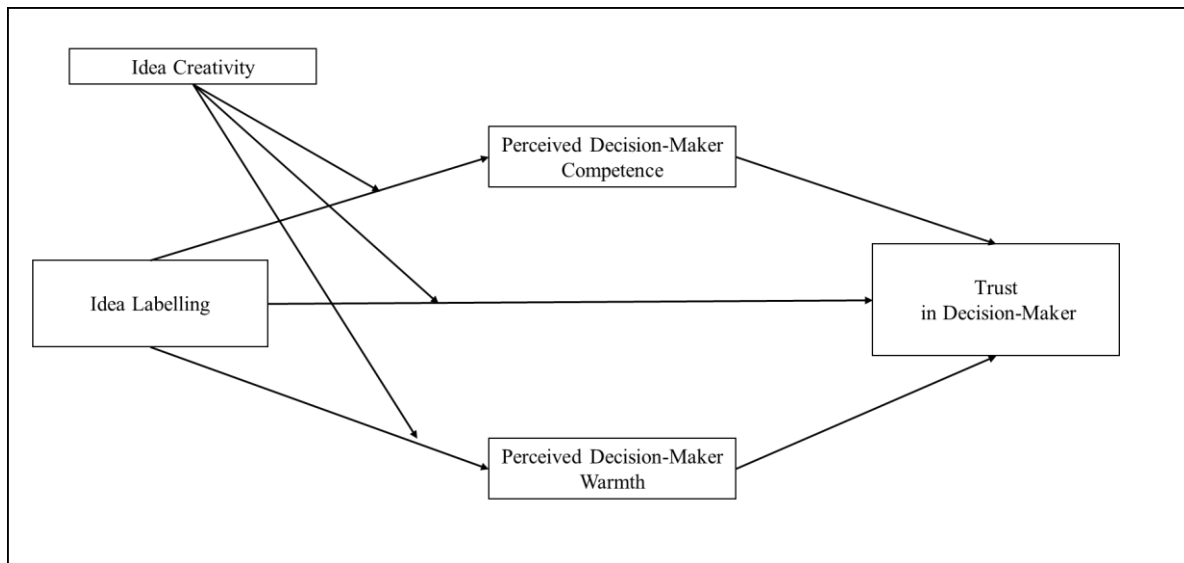
Accordingly, we hypothesize that:

*Hypothesis 1: The creativity of an idea will moderate the effect of idea labelling (creative/uncreative) on trust in decision-makers, such that the effect of idea labelling on trust will be stronger when the idea is high in creativity than when the idea is low in creativity.*

*Hypothesis 2a: Competence perceptions will mediate the relationships between the interaction effect of idea labelling and idea creativity on trust, such that failure to recognize a creative idea reduces perceptions of a decision-maker's competence, which in turn reduces trust.*

*Hypothesis 2b: Warmth perceptions will mediate the relationships between the interaction effect of idea labelling and idea creativity on trust, such that failing to recognize a creative idea reduces perceptions of a decision-maker's warmth, which in turn reduces trust.*

**Figure 4.1**  
*Theoretical Model*



### Overview of Studies

We first establish the phenomenon of the effect of creative idea labelling on trust in a pilot field survey of Indian employees in the creative industries. Next, we conceptually replicate this finding, and test for Hypothesis 1 using two scenario experiments in which participants react to managerial feedback of their team member’s idea (Studies 1a and 1b). In Study 1b, we also test Hypotheses 2 a and b. Last, we replicate these findings, and test for the full model, by using a scenario experiment in which participants react to managerial feedback of their own ideas (Study 2). Studies 1-2 were pre-registered at [https://osf.io/7c6n5/?view\\_only=0e51aa04e3464a5a9a747de484d8617d](https://osf.io/7c6n5/?view_only=0e51aa04e3464a5a9a747de484d8617d) , [https://osf.io/5nz3b/?view\\_only=c93bb1d47155479bb9e85ec51d6ad303](https://osf.io/5nz3b/?view_only=c93bb1d47155479bb9e85ec51d6ad303) , [https://osf.io/xc63d/?view\\_only=d8bb3b966fbb4d569d2a95fa36e4e936](https://osf.io/xc63d/?view_only=d8bb3b966fbb4d569d2a95fa36e4e936)

### Pilot Study: Field Survey of Employees in Creative Industries

In this pilot survey, we were interested in establishing the phenomenon of how creative idea labelling influenced trust. This allowed us to establish external validity, and partially address Hypothesis 1.

## Method

### Participants and Procedure

As part of a larger data collection effort, we sought to recruit 100 Indian employee-manager dyads in creative industries using Maction, a survey panel based in India. An initial sample of 115 employees and 114 managers completed the study. Upon merging both datasets and inspecting the anonymous matching IDs, we excluded 1 dyad and 1 employee due to potential error of matching employee and manager responses.<sup>8</sup> Thus, the final sample used for analyses consisted of 113 employee-manager dyads. Employees were 69% male,  $M_{\text{age}} = 31.13$  years,  $SD_{\text{age}} = 3.20$  years. Managers were 82% male,  $M_{\text{age}} = 36.54$  years,  $SD_{\text{age}} = 3.58$  years. Participants were invited to take part in a survey on their opinions about working with each other. To encourage honesty in ratings, employees and managers were informed that these ratings were confidential and would not be revealed to the other party. Employees completed ratings on their manager's tendency to recognize creative ideas at work. Then, they were asked to indicate how much they trusted their manager based on their specific experience with their manager's ability to recognize creative ideas. We incorporated the manager's self-report of the duration of their working relationship with this specific employee, the length of their current managerial experience, age, and gender in this study.

### Measures

All measures were completed using a 7-point Likert Scale (1 = strongly disagree – 7 = strongly agree).

#### *Perceived Managerial Creative Idea Labelling*

Employees were told that we were interested in understanding how their manager “explicitly identifies ideas presented to them at work that are creative, unconventional, and

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<sup>8</sup> The main variables used from this dataset for this study were not used in any other studies.

unique. These ideas may be those you presented to or that you have seen your co-workers present to them.” We provided this stem as we were interested in the employee’s overall perceptions of their manager’s ability to explicitly recognize creative ideas presented to them at work, regardless of whether the ideas were generated by the employee. Employees completed a three-item measure created for this study, “My manager is able to identify creative ideas”, “My manager is able to identify unconventional ideas”, and “My manager is able to identify unique ideas.” ( $\alpha = .51$ ).

### *Trust in Manager*

We provided the stem “Based on your experience with your manager’s skill in identifying creative ideas”, in order to focus participants’ ratings of their trust in the manager based on the ability to identify creative ideas. Participants completed an adapted three-item measure of cognitive trust (McAllister, 1995). The three items were “This person approaches his/her job with professionalism and dedication.”, “Given this person’s track record, I see no reason to doubt his/her competence and preparation for the job”, and “I can rely on this person not to make my job more difficult by careless work” ( $\alpha = .47$ ). We chose to measure cognitive trust in this instance, as our initial foray into this project was to understand how individuals are likely to trust their managers at work as a result of the manager’s ability to recognize creative ideas. Thus, we were focused more on how individuals are likely to trust managers with relation to how they execute tasks and responsibilities.<sup>9</sup>

### *Control Variables*

We sought to include control variables in our regression model to account for alternative explanations for employee’s trust in managers. As employees may trust managers based on their ongoing interactions with each other (Singh, 2012), we sought to control for

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<sup>9</sup> To assess employees’ overall trust levels towards their manager, we also asked them to indicate how much they agreed to the following statements: “My manager is trustworthy”, “My manager can be trusted”, “My manager is dependable” ( $\alpha = .46$ ). Results remain consistent.

the length of their working relationship and the length of the manager's current managerial experience to account for past interactions as potential indications of trust. We also controlled for both employees' and managers' age and gender, to account for potential age biases associated with trust development (Van Den Bos et al., 2012), and to account for gender stereotypes affecting interpersonal perceptions of creativity (Proudfoot et al., 2015), respectively.

## Results

Descriptive statistics are shown in Table 4.1. We first regressed manager's creative idea labelling on trust, and then included control variables in the next model. As is shown in Table 4.2 Model 2, the more employees perceived their manager to use the creative idea label, the more likely they were to trust their manager,  $b = .40$ ,  $SE = .10$ ,  $p < .001$ , 95% CI  $[-.59, -.21]$ . Thus, we establish the overall phenomenon that the decision-maker's explicit recognition of creative ideas at work is positively related to an employee's trust in them.

**Table 4.1**

*Pilot Study: Descriptive Statistics: Means, SDs, and Correlations*

Variable	M	SD	1	2	3	4	5	6	7
1. Trust in manager	5.88	.66	-						
2. Perceived managerial creative idea labelling	5.99	.64	.43**	-					
3. Employee-manager work relationship length	3.04	2.21	-.05	.07	-				
4. Manager managerial experience	4.94	2.16	.09	.13	.84***	-			
5. Employee age	36.54	3.58	.23*	.15	-.04	.03	-		
6. Employee gender <sup>a</sup>	.27	.45	.07	.28**	.25**	.18	-.02	-	
7. Manager age	31.13	3.20	.21*	.28**	-.14	-.11	.43***	-.07	-
8. Manager gender <sup>a</sup>	.31	.46	.06	.15	.06	.06	-.12	.49***	.03

Note:  $N = 113$  observations. <sup>a</sup> Gender is coded as 0 = male, 1 = female.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**Table 4.2**

*Pilot Study: Regression Analyses of Perceived Managerial Idea Labelling Ability on Trust in Manager*

	Model 1		Model 2	
	Trust in Manager			
Predictor	b	s.e.	B	s.e.
Intercept	5.88***	.06	4.79**	.71
Control variables				
Employee-Manager Work Relationship Length			-.10*	.05
Manager Managerial Experience			.10*	.05
Employee Age			.01	.02
Employee Gender			.05	.14
Manager Age			.02	.02
Manager Gender			-.03	.15
Perceived Managerial Idea Labelling Ability	.45***	.09	.40***	.10
R <sup>2</sup>	.19		.25	
N	113		112	

Note: Coefficients are unstandardized. Continuous variables were centred for analysis.

N=112 dyads in Model 2 because one employee had neglected to report their age.

## Discussion

The findings from this pilot survey provide initial, real-world evidence that managers who are perceived to recognize creative ideas at work are more likely to be trusted by their employees. What these findings also suggest is the potential counter-factual, that individuals who do not recognize creative ideas at work are trusted less, thus providing initial support for our theory. However, despite our attempts at directing employees to complete the trust measure based on their assessment of their manager's ability to label creative ideas as such, the cross-sectional design of our survey prevents us from making causality claims about our findings. Further, the low reliabilities of the measures used in this survey also cast doubt on relying on these findings to support our initial hypotheses. Lastly, we were unable to compare how failing to recognize creative ideas relates to the recognition of creative ideas. To address



these potential concerns, we sought to conceptually replicate these findings using experiments in subsequent studies. In Studies 1a-1b, we examine how individuals imagining themselves to be part of a product design team may respond to explicit idea labelling, to test for causality, and to rule out any potential relationship confounding effects. Further, we also tested the moderating effect of idea creativity to examine whether the effect of idea labelling especially matters when ideas are highly creative, to test Hypothesis 1. In Study 1b, we also tested our moderated mediation hypotheses (H2a and H2b).

### **Study 1a: Experimental Vignette Study**

#### **Method**

##### **Participants and Procedure**

A G\*Power analysis indicated that to detect an effect size of  $f = .20$ , with alpha of .05 and a power of .90 for this experimental design, 265 participants were needed in total. Accounting for potential attrition and exclusion of attention failures, we sought to recruit 500 participants for this study. Participants were Prolific workers based in the United Kingdom, spoke English as their first language, and were full-time employees. In inspecting the data, we noticed that some participants indicated not being employed, despite being screened by the survey platform as being so. Thus, we excluded these participants. After additionally excluding anyone who failed attention checks, we arrived at a final sample of 450 participants,  $M_{\text{age}} = 40.68$  years,  $SD_{\text{age}} = 11.47$  years, 52% male.

Participants were randomly assigned to one of four conditions of a 2 (idea label: highly creative/least creative) X 2 (idea creativity: high/low) between-subjects design. Participants were told that this experiment was about understanding how individuals generated and developed ideas together. Participants read about the following scenario:

“Please imagine that you are working at Alpha, a company that comes up with innovative products. These products range from industrial to household use. You are working in the design team. Each month, your team meets and each team member individually presents ideas. In this presentation, **the idea creator presents a detailed product design sketch and a description of the product's function.**

**Ashley, your team leader**, then **provides their written evaluation of the idea** and decides whether the idea is valuable enough for your team to start working on it together. Particularly, **Ashley considers whether the idea is creative** (i.e., whether the idea is both novel and useful).

You will now be presented with a product presentation, and then Ashley's written evaluation of this idea. Please take your time to read each section carefully, as you will be asked questions about it later.

When you're ready, please click to continue.”

We manipulated the creativity of the product idea by randomly presenting participants with either a creative or an uncreative product presentation and told them that it was done by a fellow colleague on the design team. Participants were presented with an image of the product sketch, the title of the product idea, and a short description of what the product idea was about. The stimuli set were obtained from a prior study on creative success that had pre-tested the ideas' creativity via external audience ratings (Berg, 2016). The following two ideas were thus either widely deemed creative or uncreative.

Creative idea manipulation (see Figure 4.2):

#### **Product Idea: Storage Device for Delivery and Pickup of Goods**

Description: This is an outdoor storage device that secures goods from theft and exposure to the elements. It provides an electronic notification to the user that goods have been delivered and/or picked up. The storage device includes an enclosure for securely enclosing the goods and a computerized communication apparatus for providing notifications that goods have been delivered or picked up.

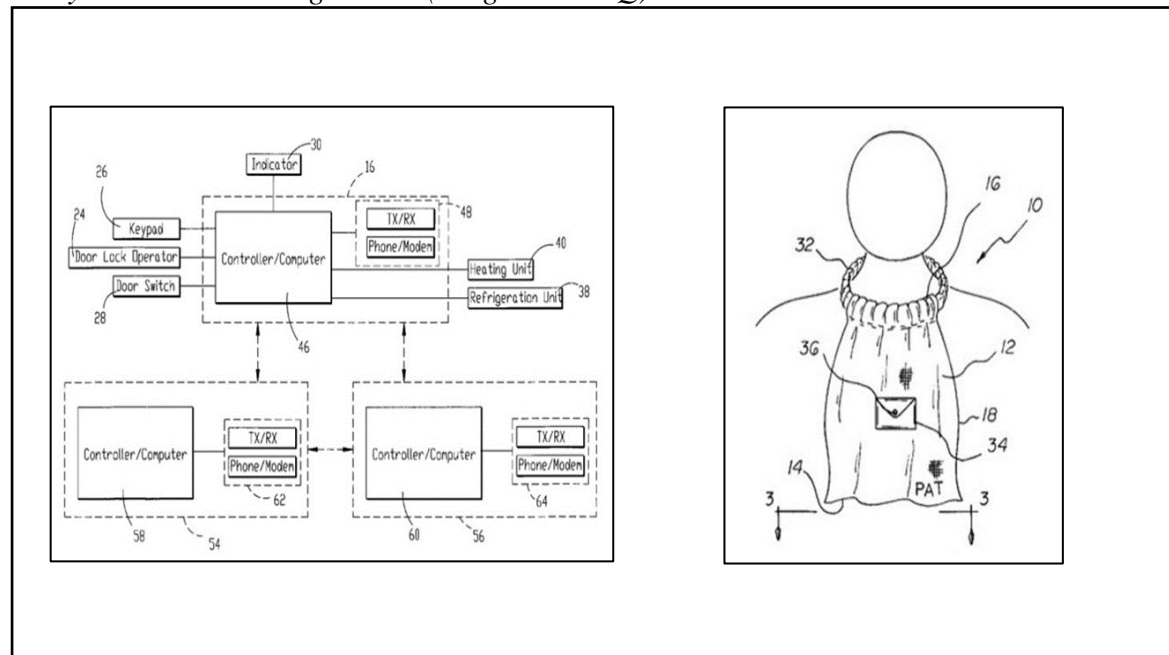
Uncreative idea manipulation (see Figure 4.2):

#### **Product Idea: Hands Free Towel Carrying System**

Description: This is a towel of a generally rectangular configuration comprised of an absorbent material. It has a loose end, a parallel coupling end, and a pair of side edges. The elastic neck loop is circular and can be stretched around a user's head without messing up the user's hair and glasses and can be formed for enlargement and reduction in size.

**Figure 4.2**

*Study 1a: Stimulus Images used (Berg 2016 ASQ)*



Next, we manipulated whether Ashley, the manager in the scenario labelled the idea as creative or uncreative by randomly presenting one of the following:

Highly creative idea label condition: “After the presentation, this is what Ashley wrote: This product is one of the most creative among the ideas I’ve seen. The design of this product is also highly creative. In my opinion, it meets the requirements for an innovative product.”

Least creative idea label condition: “After the presentation, this is what Ashley wrote: This product is one of the least creative ideas I’ve seen. The design of this product is not creative. It does not meet the requirements for an innovative product.”

Given our interest in the decision-maker’s failure to recognize creativity, we coded idea creativity as 1 = creative idea, and 0 = uncreative idea. Idea labelling was coded as 1 = least creative idea label, and 0 = highly creative idea label. Participants were then asked to indicate how much they trusted Ashley. Last, demographic information was collected, and they were debriefed.

## Measures

All measures were completed using a 7-point Likert Scale (1 = strongly disagree – 7 = strongly agree).

### *Trust In Manager*

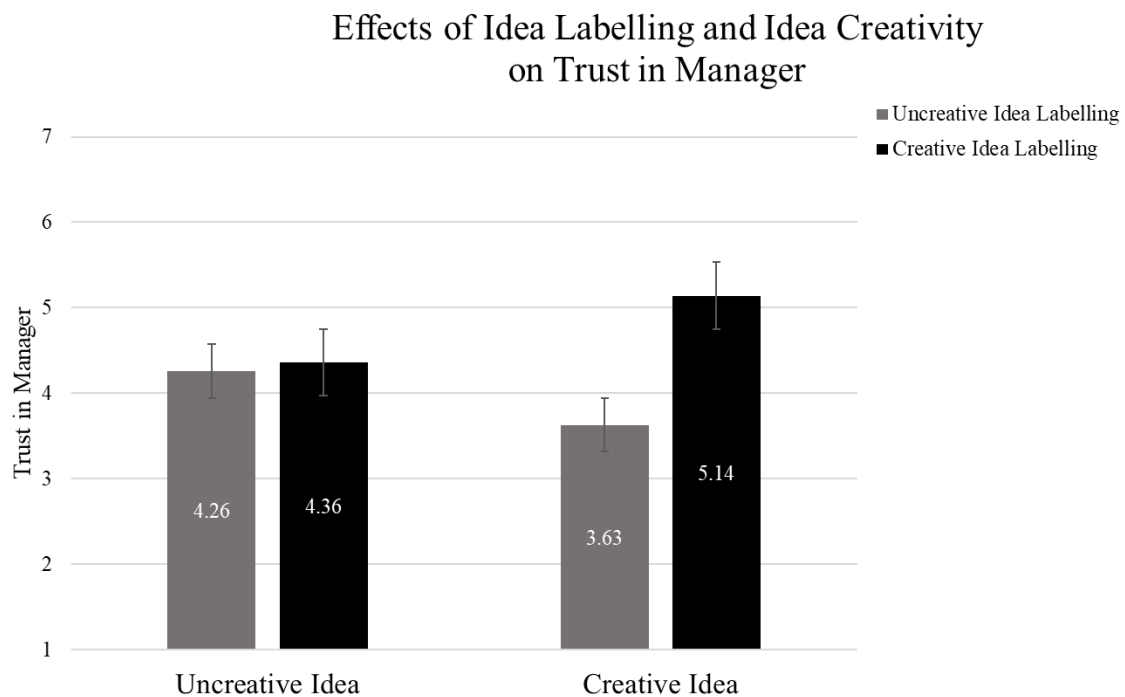
Participants were asked to complete a measure of trust, by indicating how much they trusted their manager, Ashley. We adapted a 3-item interpersonal trust measure from Du Plessis and colleagues (2023), by including Ashley's name in each item to directly address how much participants trusted Ashley. The items were "I think that I can fully trust Ashley.", "Ashley will take my interests into account.", and "Ashley is trustworthy." ( $\alpha = .91$ ).

### **Results**

Descriptive statistics are shown in Table 4.3. To test Hypothesis 1, we ran a 2 (idea label: highly/least creative) x 2 (idea creativity: low/high) ANOVA to examine the effect of the idea label and idea creativity on trust. Results indicate a significant main effect of idea label on trust,  $F(1, 446) = 55.77, p < .001, \eta p^2 = .11$ , which is in line with our general intuition that labelling an idea as creative fosters trust. There was no main effect of idea creativity on trust,  $F(1, 446) = .55, p = .461, \eta p^2 = .00$ . We also observed a significant interaction effect between idea label and idea creativity on trust,  $F(1, 446) = 42.43, p < .001, \eta p^2 = .09$ . As shown in Figure 4.3 and as predicted in Hypothesis 1, planned pairwise comparisons revealed that for participants who were presented with a creative idea, participants trusted Ashley less when Ashley labelled the idea as uncreative ( $M = 3.63, SD = 1.12$ ), than when Ashley labelled the idea as creative ( $M = 5.14, SD = 1.00$ ),  $F(1, 446) = 99.14, p < .001, \eta p^2 = .18$ . In contrast, among those who were presented with an uncreative idea, participants trusted Ashley similarly when Ashley labelled the idea as uncreative ( $M = 4.26, SD = 1.26$ ) and when Ashley labelled the idea as creative ( $M = 4.36, SD = 1.18$ ),  $F(1, 446) = .45, p = .503, \eta p^2 = .00$ .

**Table 4.3***Study 1a: Descriptive Statistics: Means, SDs, and Correlations*

Variable	<i>M</i>	<i>SD</i>	1	2
1. Trust in Manager	4.36	1.26		
2. Idea Labelling	.50	.50	-.33***	
3. Idea Creativity	.51	.50	.04	-.04

Note: *N* = 450 observations.\*\*\*  $p < .001$ **Figure 4.3***Study 1a: Interaction Between Idea Labelling and Idea Creativity on Trust in Manager***Post-Hoc Analysis**

One might wonder if simply incorrectly labelling an idea, reduces trust. In order to test for this, we re-coded our idea label variable in Study 1a into an idea label accuracy variable where 1 = correctly labelled and 0 = incorrectly labelled. In other words, when the creative idea was labelled as creative and when the uncreative idea was labelled as least creative, our new variable was equal to 1 (correctly labelled). When the creative idea was labelled as least creative and when the uncreative idea was labelled as creative, our new variable was equal to 0 (incorrectly labelled).

We ran a 2 (idea label accuracy: correct/incorrect) x 2 (idea creativity: low/high) ANOVA to examine the effect of the idea label accuracy and idea creativity on trust. Results indicate a significant main effect of idea label accuracy on trust,  $F(1, 446) = 42.43, p < .001, \eta p^2 = .09$ . There was no main effect of idea creativity on trust,  $F(1, 446) = .55, p = .461, \eta p^2 = .00$ . We also observed a significant interaction effect between idea label accuracy and idea creativity on trust,  $F(1, 446) = 55.77, p < .001, \eta p^2 = .11$ . Planned pairwise comparisons revealed that when the idea was correctly labelled, participants trusted Ashley more when the idea was creative ( $M = 5.14, SD = 1.00$ ), than when the idea was uncreative ( $M = 4.26, SD = 1.26$ ),  $F(1, 446) = 34.92, p < .001, \eta p^2 = .07$ . In contrast, when the idea was incorrectly labelled, participants trusted Ashley significantly less when the idea was creative ( $M = 3.63, SD = 1.12$ ) than when the idea was uncreative ( $M = 4.36, SD = 1.18$ ),  $F(1, 446) = 21.86, p < .001, \eta p^2 = .05$ .

To check that our results are aligned with our theory, we further sought to test whether the effects observed were driven by recognizing a creative idea, or by the failure to recognize a creative idea. To do so, we ran contrast analyses to compare the effects of creative label X creative idea condition against the uncreative label X uncreative idea condition (i.e. recognizing creativity) on trust, and the effects of uncreative label X creative idea condition (i.e. failure to recognize creativity) against the uncreative label X uncreative idea condition on trust. Against the baseline of recognizing conventional ideas, we found that the effects of recognizing creativity,  $b = .88, SE = .15, p < .001, 95\% CI [.59, 1.18]$  were similar to failing to recognize creativity,  $b = -.62, SE = .16, p < .001, 95\% CI [-.92, -.32]$ . These findings further reaffirm that failing to recognize creativity is likely to be impactful in influencing change in levels of trust.

## Discussion

In this first experiment, we demonstrated that when a manager fails to recognize the creativity in a creative idea and verbalizes this to their team by labelling the creative idea as uncreative, the members of that team trust the manager less than when the manager recognizes the creativity in that same idea and labels the creative idea as creative. By showing that the same is not true for uncreative ideas, we demonstrate that the effect is not merely a halo effect of labelling any idea as uncreative. Rather, we demonstrate that only labelling (and thus failing to recognizing) a creative idea as uncreative meaningfully leads to lower trust. In our next study, we sought to replicate these findings and conduct a test of Hypotheses 3a and 3b by measuring warmth and competence as mediators.

### Study 1b: Replication and Test of Moderated Mediation

#### Method

##### Participants, Tasks, and Procedure

A G\*Power analysis indicated that to detect an effect size of  $f = .20$ , with alpha of .05 and a power of .90 for this experimental design, 265 participants were needed in total. Accounting for potential attrition and exclusion of attention failures, we sought to recruit 450 participants for this study. Participants were Prolific workers based in the United Kingdom, spoke English as their first language, and were full-time employees. After excluding for attention failures, we arrived at a final sample of 414 participants,  $M_{\text{age}} = 39.16$ ,  $SD_{\text{age}} = 11.09$ , 52.7% male.

Participants were randomly assigned to one of four conditions of a 2 (idea label: highly/not particularly creative) x 2 (idea creativity: low/high) between-subjects design.

Participants were told that this experiment was about understanding how individuals generated and developed ideas together. They were then presented with the same scenario as

in Study 2a. The only difference was the wording in the “not particularly creative idea label” condition. In order to mimic realistic behavior, in which managers are sensitive to their employees’ reactions (Simon et al., 2022; Watts et al., 2017), and may tend to be mindful in how they deliver criticism. the wording took on the following, softer tone:

Least creative idea label condition: “This product is not really that creative among the ideas I’ve seen. The design of this product is also not particularly creative. In my opinion, it does not really meet the requirements for an innovative product.”

Given our interest in the decision-maker’s failure to recognize creativity, we coded idea creativity as 1 = creative idea, and 0 = uncreative idea. Idea labelling was coded as 1 = least creative idea label, and 0 = highly creative idea label. Participants were then asked to complete measures of Ashley’s warmth and competence, followed by a measure on how much they trusted Ashley. Last, demographic information was collected, and they were debriefed.

## **Measures**

All measures were completed using a 7-point Likert Scale (1 = strongly disagree – 7 = strongly agree).

### *Perceptions of Managerial Warmth and Competence*

Participants completed two-item measures of managerial warmth and competence (Cuddy et al., 2007). They indicated the extent to which they thought Ashley is “warm”, “friendly” ( $\alpha = .96$ ), “competent”, and “capable” ( $\alpha = .95$ ).

### *Trust in Manager*

Participants completed the same measure as in Study 1a. ( $\alpha = .87$ ).

## **Results**

Descriptive statistics are shown in Table 4.4. To test Hypothesis 1, we ran 2 (idea label: highly/not particularly creative) x 2 (idea creativity: low/high) ANOVA to examine the effect of idea labelling and idea creativity on trust. Results indicate a significant main effect



of idea labelling on trust,  $F(1, 410) = 18.52, p < .001, \eta p^2 = .04$ . There was no main effect of idea creativity on trust,  $F(1, 410) = .26, p = .609, \eta p^2 = .00$ . We also observed a significant interaction effect between idea labelling and idea creativity on trust,  $F(1, 410) = 38.60, p < .001, \eta p^2 = .09$ . As shown in Figure 4.4 and as predicted in Hypothesis 1, planned pairwise comparisons revealed that for participants who were presented with a creative idea, participants trusted Ashley less when Ashley labelled (and thus failed to recognize) the idea as not particularly creative ( $M = 4.09, SD = .94$ ) than when Ashley labelled the idea as creative ( $M = 5.15, SD = 1.03$ ),  $F(1, 410) = 55.02, p < .001, \eta p^2 = .12$ . In contrast, among those who were presented with an uncreative idea, participants trusted Ashley to a similar degree when Ashley labelled the idea as not particularly creative ( $M = 4.77, SD = 1.01$ ) and when Ashley labelled the idea as creative ( $M = 4.58, SD = 1.11$ ),  $F(1, 410) = 1.83, p = .177, \eta p^2 = .00$ .

**Table 4.4**

*Study 1b Descriptive Statistics: Means, SDs, and Correlations*

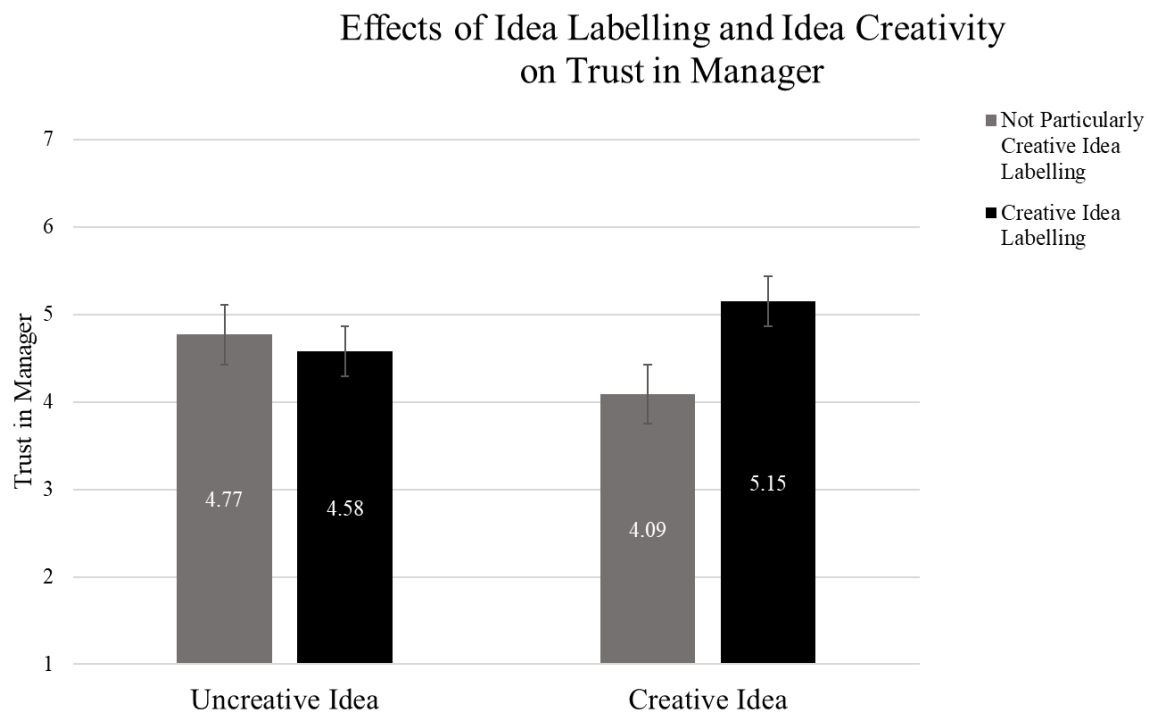
Variable	<i>M</i>	<i>SD</i>	1	2	3	4
1. Trust in Manager	4.65	1.09				
2. Perceived Managerial Warmth	4.71	1.36	.57***			
3. Perceived Managerial Competence	5.14	1.28	.67***	.22***		
4. Idea Labelling	.49	.50	-.20***	-.67***	.15**	
5. Idea Creativity	.50	.50	-.02	-.12*	.08	-.01

Note:  $N = 414$  observations.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Figure 4.4**

*Study 1b: Interaction Between Idea Labelling and Idea Creativity on Trust in Manager*



### **Moderated Mediation Analysis**

In this study, we conducted a moderated mediation analyses to understand how competence and warmth would serve as mediating mechanisms. To test the parallel mediation model, we conducted a first stage moderated mediation analysis using PROCESS Model 8 in SPSS as recommended by Hayes (2017). We used the following indicator coding: idea label: not particularly creative = 1, creative = 0; idea creativity: creative = 1, uncreative = 0. The index of moderated mediation indicates that warmth and competence simultaneously mediate the interaction effect on trust, warmth:  $b = -.35$ ,  $SE = .08$ , 95% CI  $[-.54, -.20]$ , competence:  $b = -.89$ ,  $SE = .13$ , 95% CI  $[-1.15, -.65]$ . The interaction between idea label and idea creativity negatively predicted perceptions of warmth,  $b = -.93$ ,  $SE = .19$ ,  $p < .001$ , 95% CI  $[-1.31, -.56]$ , which in turn predicted trust,  $b = .37$ ,  $SE = .04$ ,  $p < .001$ , 95% CI  $[.30, .45]$ . The interaction between idea label and idea creativity also negatively predicted perceptions of

competence,  $b = -1.85$ ,  $SE = .23$ ,  $p < .001$ , 95% CI [-2.31, -1.40], which in turn predicted trust,  $b = .48$ ,  $SE = .03$ ,  $p < .001$ , 95% CI [.42, .54]. As seen in Table 4.5, perceptions of competence decreased with a higher magnitude ( $b$  ranging from .62 to -.27) than perceptions of warmth, ( $b$  ranging from -.51 to -.86) when participants observed Ashley label a creative idea compared to when participants observed Ashley label an uncreative idea.

**Table 4.5**

*Study 1b: Indirect effect of Perceived Managerial Competence and Perceived Managerial Warmth on Evaluator Trust at varying conditions of Idea Creativity*

		Perceived Managerial Competence			
Idea Creativity		B	BootSE	BootLLCI	BootULCI
Not Particularly Creative Idea		.62	.09	.45	.81
Creative Idea		-.27	.07	-.42	-.13
		Perceived Managerial Warmth			
Idea Creativity		B	BootSE	BootLLCI	BootULCI
Not Particularly Creative Idea		-.51	.07	-.66	-.38
Creative Idea		-.86	.10	-1.07	-.68

### Post-Hoc Analysis

In Study 1b, we once again sought to test for whether simply correctly labelling ideas would breed same levels of trust. We ran a 2 (idea label accuracy: correct/incorrect) x 2 (idea creativity: low/high) ANOVA to examine the effect of idea label accuracy and idea creativity on trust. Results indicate a significant main effect of idea label accuracy on trust,  $F(1, 410) = 38.6$ ,  $p < .001$ ,  $\eta^2 = .09$ . There was no main effect of idea creativity on trust,  $F(1, 410) = .26$ ,  $p = .609$ ,  $\eta^2 = .00$ . We also observed a significant interaction effect between idea label accuracy and idea creativity on trust,  $F(1, 410) = 18.52$ ,  $p < .001$ ,  $\eta^2 = .04$ . Planned pairwise comparisons revealed that when the idea was correctly labelled, participants trusted Ashley more when the idea was creative ( $M = 5.15$ ,  $SD = 1.03$ ), than when the idea was uncreative ( $M = 4.77$ ,  $SD = 1.01$ ),  $F(1, 410) = 7.22$ ,  $p = .007$ ,  $\eta^2 = .02$ . In contrast, when the idea was incorrectly labelled, participants trusted Ashley significantly less when the idea was creative ( $M = 4.09$ ,  $SD = .94$ ) than when the idea was uncreative ( $M = 4.58$ ,  $SD = 1.11$ ),  $F(1, 410) =$

11.54,  $p < .001$ ,  $\eta p^2 = .03$ . Again, these findings further reinforce our theoretical assumptions that the effect of idea labelling relating to trust matters especially for creative ideas.

To check that our results are aligned with our theory, we once again sought to test for whether the effects observed were driven by recognizing a creative idea, or by the failure to recognize a creative idea. To do so, we ran contrast analyses to compare the effects of creative label X creative idea condition against the uncreative label X uncreative idea condition (i.e. recognizing creativity) on trust, and the effects of uncreative label X creative idea condition (i.e. failure to recognize creativity) against the uncreative label X uncreative idea condition on trust. Against the baseline of recognizing conventional ideas, we found that recognizing creativity had a smaller difference,  $b = .38$ ,  $SE = .14$ ,  $p = .007$ , 95% CI [.10, .66] as compared to failing to recognize creativity,  $b = -.68$ ,  $b = .14$ ,  $p < .001$ , 95% CI [-.96, -.40]. These findings further reaffirm that failing to recognize creativity is likely to be impactful in influencing change in levels of trust.

## Discussion

In this study, we replicated the finding that labelling an idea as uncreative leads to reduced trust in the manager. Second, we again found that this effect happens for creative ideas but not for uncreative ideas. These results provide support for Hypothesis 1. Last, we demonstrate that both warmth and competence mediate our moderated effect, showing that when decision-makers fail to recognize a creative idea, participants perceive them to be low in competence and warmth than when they recognize a creative idea, lending initial support to Hypotheses 2a and 2b. It is worthy to note that competence has a stronger effect.

The context we chose for these first two experimental studies is one in which a team member generated either a creative or an uncreative idea, and the participant witnesses how the manager either labels that idea as highly creative or as least/not particularly creative. In our next study, we sought to test our prediction that participants' trust would be equally

affected if one of their own ideas was being evaluated by the manager, and how trust is contingent on participants' perception of their idea's creativity, which is likely to be inflated (Berg, 2016; Lou et al., 2022). Lastly, we also tested Hypothesis 2a and 2b, for the mediation mechanisms of warmth and competence perceptions.

## Study 2: Idea Creator's Reaction

### Method

#### Participants, Tasks, and Procedure

As we are testing for an interaction effect between idea label (categorical predictor) and self-rated creativity (continuous predictor), we aimed to recruit 100 participants per cell in this design ( $N = 400$  in total). Accounting for potential attrition and attention check failures, we recruited 450 participants for this study. Participants were Prolific workers based in the United Kingdom, spoke English as their first language, and were full-time employees. After excluding those with attention failures, we arrived at a final sample of 392 participants,  $M_{\text{age}} = 38.14$  years,  $SD_{\text{age}} = 10.56$  years, 57.1% male. This experiment used a between-subjects design.

Unlike the previous two studies in which an idea by another team member was presented, participants in the current study were asked to come up with their own product design in preparation for an upcoming team meeting. Specifically, they were asked to come up with a creative potato chips flavor (Goncalo & Katz, 2020). Given that we ran this study in the UK, we used the word crisps rather than chips. First, participants were told the following:

“Please imagine that you are working at Alpha, a company that comes up with innovative product branding campaigns. These products range from industrial to household use.

You are working in the campaign design team. Each month, your team meets and each team member individually presents ideas to prepare for upcoming client presentations. In these meetings, **an idea creator presents a detailed proposal of a product brand campaign.**

**Ashley, your team leader, then provides their written evaluation of the idea** and decides whether the idea is valuable enough for your team to start working on it together. Particularly, **Ashley considers whether the campaign idea is creative** (i.e., whether the idea is both novel and useful).”

Then they were asked to do the following:

“Please take a few minutes to come up with a creative potato crisps flavour for your upcoming meeting.

**Specifically, this product is for a famous potato crisps brand. They are looking to release a limited edition flavour of potato crisps that is creative, novel, and unique. This product needs to be creative (i.e. both novel and useful).**

**On the following page, you will be asked to come up with the following details:**

- A name for a potato crisps product that is creative, novel, and unique
- What the potato crisps product tastes and looks like
- What the product packaging looks like
- The occasions that this potato crisps product is suited for
- An advertising slogan to use for this potato crisps product

**Please write at least 5-6 sentences about your product design.**

You will be able to submit the idea and move to the next page after 3 minutes.”

We then collected the participants’ self-ratings of how creative, novel, and useful they perceived their product idea to be. Then, we randomly assigned participants to imagine the following scenario:

“Now, we would like you to imagine that the day of the monthly team meeting has arrived. It is your turn and you present the potato crisps product you created. These are the details you came up with: (the participant’s idea was displayed here). At the end of the presentation, Ashley provided you with feedback on your product design.”

Highly creative idea label condition: "This potato crisps flavour is one of the most creative among the ideas I've seen. The design of this product is also highly creative. In my opinion, it meets the requirements for an innovative potato crisps product."

Not particularly creative idea label condition: "This potato crisps flavour is not really that creative among the ideas I've seen. The design of this product is also not particularly creative. In my opinion, it does not really meet the requirements for an innovative potato crisps product."

Given our interest in the decision-maker's failure to recognize creativity, we coded idea labelling as 1 = least creative idea label, and 0 = highly creative idea label. Participants then completed their perceptions of Ashley's warmth and competence, followed by a measure of how much they trusted Ashley. Last, demographic information was collected and participants were debriefed.

## **Measures**

All measures were completed using a 7-point Likert Scale (1 = strongly disagree – 7 = strongly agree).

### *Manipulation Check*

To assess if the idea label manipulation successfully induced participants to believe that Ashley thought their idea was creative or not, participants completed a three-item measure: "Ashley found my product creative", "Ashley thought my product was conventional" (reverse scored), and "Ashley thought my product was innovative" ( $\alpha = .64$ ).

### *Creativity of Self-Generated Product*

Participants rated how creative, novel, and useful they perceived their own potato chips product idea to be. We measured perceived overall creativity with two items: "This product is creative/innovative" ( $\alpha = .84$ ), perceived novelty with three items: "This product is novel/unique/original" ( $\alpha = .88$ ), and perceived usefulness with three items: "This product is useful/practical/functional" ( $\alpha = .83$ ). These measures are adapted from Mueller and colleagues (2018), examining perceptions of creativity. We present results of the creativity measure here, and provide results relating to novelty and usefulness in Appendix 4.1. Results are no different between creativity, novelty, and usefulness ratings.

### *Perceptions of Managerial Warmth and Competence*

Participants completed the same two-item measures of perceived managerial warmth and competence (Cuddy et al., 2007) as in Study 1b. They indicated the extent to which they thought Ashley is “warm”, “friendly” ( $\alpha = .97$ ), “competent”, and “capable” ( $\alpha = .97$ ).

### *Trust in Manager*

Participants completed the same measure as in Studies 1a and 1b ( $\alpha = .95$ ).

## **Results**

Descriptive statistics are shown in Table 4.6. Participants in the not particularly creative idea label condition ( $M = 2.35$ ,  $SD = .78$ ) were significantly less likely to indicate that Ashley thought of their idea as creative than participants in the highly creative idea label condition ( $M = 5.82$ ,  $SD = .85$ ),  $t(390) = 42.16$ ,  $p < .001$ ,  $d = 4.26$ . Thus, the manipulation was successful.

However, we observed that certain measures reported by participants in the model were quite highly correlated with each other. We conducted a confirmatory factor analysis to investigate the distinctiveness of the theoretical variables perceived managerial warmth, perceived managerial competence, and trust in manager. First, we tested our hypothesized three-factor model in which each construct loaded on its own factor ( $\chi^2 = 100.35$ ,  $df = 11$ ,  $p < .001$ , root mean square error of approximation [RMSEA] = .14, standardized root mean residual [SRMR] = .03, comparative fit index [CFI] = .98). Next, we examined the relative fit of this model to two alternative models: (1) a two-factor model where perceived managerial warmth and competence loaded on a single factor and trust in manager loaded on a separate factor, and (2) a one-factor model where all three variables loaded on a single construct. The hypothesized three-factor model (perceived managerial warmth, perceived managerial competence, and trust in manager) with items loading on their respective factors showed stronger fit than either the two-factor model ( $\Delta\chi^2 = 629.54$ ,  $\Delta df = 2$ ,  $p < .001$ , RMSEA = .38,



SRMR = .11, CFI = .82) or the one-factor model ( $\Delta\chi^2 = 791.19$ ,  $\Delta df = 3$ ,  $p < .001$ , RMSEA = .40, SRMR = .06, CFI = .77). Overall, these results serve to provide support for the distinctiveness between these three seemingly interrelated variables.

However, we also observed that the experimentally manipulated condition, idea labelling, was also quite highly correlated with perceived managerial warmth and perceived managerial competence. We assessed for potential multicollinearity issues by checking the variance inflation scores (VIF) when entering these predictors into a regression model towards the outcome of trust in manager. As mentioned in Chapter 2, if a predictor has a VIF score of more than 10, and or a tolerance value of less than .10, multicollinearity is deemed to have occurred and the predictor in question is inappropriate to include in a model. Results indicate that in entering idea labelling, perceived managerial warmth, and perceived managerial competence as predictors in a regression model on trust in manager, idea labelling had a VIF score of 3.27 and a tolerance score of .31, perceived managerial warmth had a VIF score of 4.67 and a tolerance score of .21, and perceived managerial competence had a VIF score of 2.05 and a tolerance score of .49. This results suggest that these variables are sufficiently distinct and are appropriate to enter as separate predictors in our analyses.

**Table 4.6**

*Study 2: Descriptive Statistics: Means, SDs, and Correlations*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Trust in Manager	4.58	1.62						
2. Perceived Managerial Warmth	4.63	1.90	.83***					
3. Perceived Managerial Competence	4.99	1.64	.81***	.71***				
4. Self-rated Idea Creativity	5.80	.99	-.04	-.04	-.01			
5. Self-rated Idea Novelty	4.83	1.01	-.02	.02	.01	.85***		
6. Self-rated Idea Usefulness	5.54	1.12	.03	.06	.06	.44***	.41***	
7. Idea Labelling	.52	.50	-.67***	-.83***	-.54***	.07	-.02	-.04

Note: *N* = 392 observations.

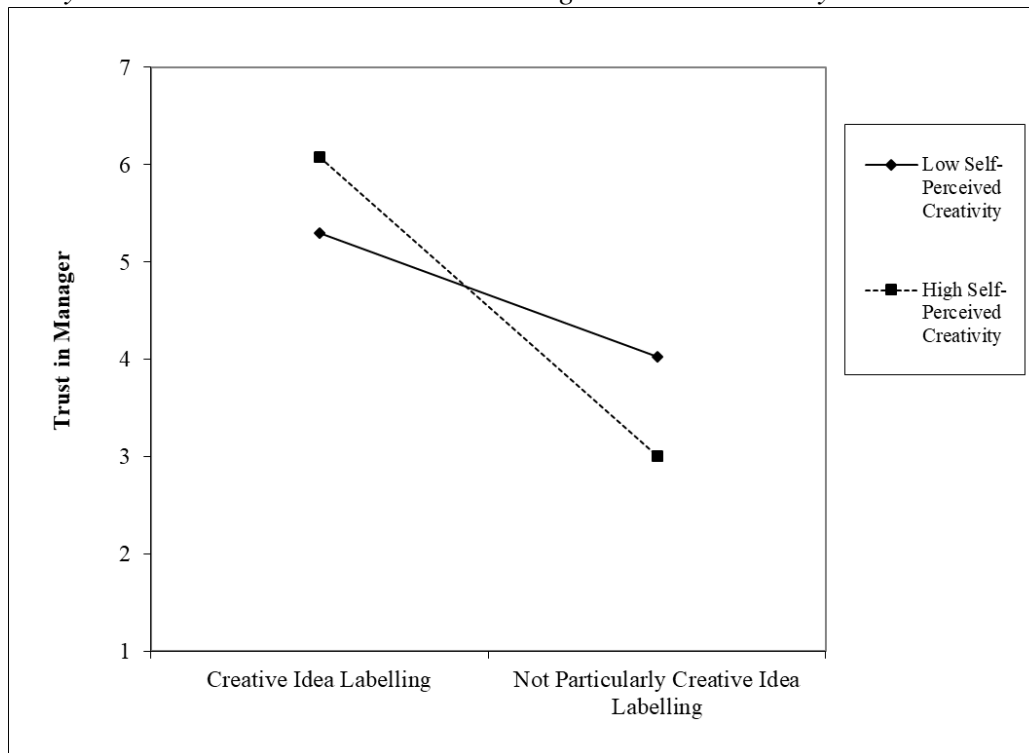
\*\*\*  $p < .001$

Participants in the highly not particularly creative idea label condition ( $M = 3.52$ ,  $SD = 1.34$ ) trusted Ashley significantly less than participants in the highly creative idea label condition ( $M = 5.69$ ,  $SD = 1.04$ ),  $t(390) = 17.86$ ,  $p < .001$ ,  $d = 1.80$ , supporting Hypothesis 1.

To test Hypothesis 1, we ran a moderated regression to examine the interaction effect of idea labelling and self-rated idea creativity on trust, by using PROCESS Model 1 in SPSS as recommended by Hayes (2017). Results indicate significant main effects of idea labelling,  $b = 3.10$ ,  $SE = .68$ ,  $p < .001$ , 95% CI [1.76, 4.43], and self-rated idea creativity,  $b = .41$ ,  $SE = .08$ ,  $p < .001$ , 95% CI [.26, .56]. Results replicate our previous findings in showing a significant interaction effect,  $F(1, 388) = 61.88$ ,  $p < .001$ ,  $R^2 \text{ Change} = .076$ . Simple slopes analyses indicate that when individuals perceive their idea as highly creative, the effects of Ashley labelling the idea as not particularly creative is much larger,  $b = -3.07$ ,  $t = -24.38$ ,  $p < .001$ , than when individuals perceive their idea as low in creativity,  $b = -1.27$ ,  $t = -8.51$ ,  $p < .001$ . Figure 4.5 displays this interaction.

**Figure 4.5**

*Study 2: Interaction Between Idea Labelling and Idea Creativity on Trust in Manager*



## Moderated Mediation Analysis

To test the parallel mediation model, we conducted a first stage moderated mediation analysis using PROCESS Model 8 in SPSS as recommended by Hayes (2017). We used the same indicator coding as in Study 1b. Table 4.7 shows the results of moderated mediation regression analyses. To address potential multicollinearity concerns, Table 4.8 shows regression analyses when perceived competence and perceived warmth are independently entered as predictors, and then simultaneously entered as predictors to predict trust.

The index of moderated mediation indicates that warmth and competence mediate the interaction effect on trust, warmth:  $b = -.23$ ,  $SE = .05$ , 95% CI  $[-.33, -.14]$ , competence:  $b = -.51$ ,  $SE = .08$ , 95% CI  $[-.66, -.37]$ . The interaction between idea label and idea creativity negatively predicted perceptions of warmth,  $b = -.53$ ,  $SE = .11$ ,  $p < .001$ , 95% CI  $[-.74, -.32]$ , which in turn predicted trust,  $b = .43$ ,  $SE = .04$ ,  $p < .001$ , 95% CI  $[.34, .51]$ . The interaction between idea label and idea creativity also negatively predicted perceptions of competence,  $b = -1.21$ ,  $SE = .13$ ,  $p < .001$ , 95% CI  $[-1.46, -.96]$ , which in turn predicted trust,  $b = .42$ ,  $SE = .04$ ,  $p < .001$ , 95% CI  $[.35, .49]$ . As seen in Table 4.9, as an idea was perceived to be more creative, perceptions of competence decreased with a higher magnitude ( $b$  ranging from  $-.24$  to  $-1.24$ ) than perceptions of warmth, ( $b$  ranging from  $-1.12$  to  $-1.57$ ).

**Table 4.7**

*Study 2: Moderated Mediation Regression Analyses Predicting Perceived Warmth, Perceived Competence, and Trust in Manager*

	Model 1		Model 2		Model 3	
	Perceived Warmth		Perceived Competence		Trust in Manager	
Predictor	<i>b</i>	s.e.	<i>b</i>	s.e.	<i>b</i>	s.e.
Intercept	4.63 ***	.47	7.81 ***	.57	1.20 **	.42
Idea Labelling	.08	.63	-5.26 ***	.76	-.93	.49
Idea Creativity	-.26 ***	.08	-.63 ***	.10	-.12 *	.06
Idea Labelling X Idea Creativity	.53 ***	.11	1.21 ***	.13	.17 *	.09
Perceived Warmth					.43 ***	.04
Perceived Competence					.42 ***	.04
<i>R</i> <sup>2</sup>	.71		.42		.79	
<i>N</i>	392		392		392	

*Note.* *N* = 392 individuals. Unstandardized coefficients and robust standard errors are reported.

\* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001

**Table 4.8**

*Study 2: Regression Analyses of Perceived Warmth and Competence Predicting Trust in Manager*

	Model 1		Model 2		Model 3	
	Trust in Manager					
Predictor	<i>b</i>	s.e.	<i>b</i>	s.e.	<i>b</i>	s.e.
Intercept	1.31***	.12	.57***	.15	.35**	.12
Perceived Warmth	.71***	.02			.44***	.03
Perceived Competence			.80***	.03	.45***	.03
<i>R</i> <sup>2</sup>	.69		.66		.79	
<i>N</i>	392		392		392	

*Note.* *N* = 392 individuals. Unstandardized coefficients and robust standard errors are reported.

\* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001

**Table 4.9**

*Study 2: Indirect effect of Perceived Managerial Competence and Perceived Managerial Warmth on Evaluator Trust at varying levels of Self-Perceived Creativity*

Perceived Managerial Competence				
Self-Perceived Creativity	<i>B</i>	<i>BootSE</i>	<i>BootLLCI</i>	<i>BootULCI</i>
4.809	-.24	.08	-.40	-.08
5.802	-.74	.09	-.93	-.57
6.795	-1.24	.15	-1.53	-.97
Perceived Managerial Warmth				
Self-Perceived Creativity	<i>B</i>	<i>BootSE</i>	<i>BootLLCI</i>	<i>BootULCI</i>
4.809	-1.12	.16	-1.44	-.83
5.802	-1.34	.17	-1.70	-1.02
6.795	-1.57	.20	-1.97	-1.19

## Discussion

First, we find additional support for Hypothesis 1 by replicating previous findings that the effect of managers' idea labelling affecting trust is moderated by an idea's creativity. In this study, rather than witnessing their manager labelling a team member's idea, the participants generated an idea for a new potato chips flavor themselves and their manager labelled that idea as highly or not particularly creative. Thus, the creative idea label applies to the participants' own ideas rather than someone else's. Furthermore, rather than having objective ratings of the idea's creativity, we provided a more realistic proxy of an idea's creativity, by considering how participants made interpersonal judgments that were contingent on how creative they thought their own ideas were.

While there was a significant interaction between the idea label and the self-rated creativity of the ideas, we found that when participants perceived Ashley labelling their idea as uncreative, this generally led to reduced trust than participants who perceived Ashley labelling their idea as creative regardless of how creative participants rated their ideas to be. However, the magnitude of the difference was much larger when the idea was self-rated as highly creative. One reason that this effect seemed to be present could be that participants may be experiencing creator biases in overestimating the creativity of their own ideas (Berg, 2016), and would thus respond negatively when their ideas are being perceived as uncreative.

Another potential reason is that the ideas that were considered as relatively less creative (ideas rated to be 1SD below the mean) were still rated at above the midpoint on the creativity scale. Thus, it is possible that all ideas here are seen as creative by the idea creators, and would thus lead to low levels of trust, even if they were operationalized as being uncreative.

Furthermore, we demonstrated that warmth and competence mediate the interaction effect, supporting Hypotheses 2a and 2b and replicating the results from Study 2b with self-generated and self-rated ideas. We also showed again that competence has a larger effect than warmth.

## **General Discussion**

Though research documents how and why decision-makers fail to recognize creative ideas at work, it remains unclear what consequences they face in doing so. Across a cross-sectional field pilot survey and three experiments, we demonstrate that decision-makers are trusted less when they fail to explicitly recognize creative ideas in the presence of others. Further, we show that the reduced trust is contingent on whether the idea is creative, as determined by consensual agreement via an external set of raters or the perceiver's own subjective views of their own idea's creativity. Last, we demonstrate that the reason why team members trust decision-makers who fail to recognize creative ideas less is that they attribute low competence and a lack of warmth to them. Thus, we identify *creative idea labelling*, a core component of evaluating creative ideas, as an important social signal for perceivers to form attributions, and subsequently trust in the decision-maker. Collectively, these findings serve to establish our initial foray into the unexpected interpersonal consequences decision-makers face when evaluating ideas. Below, we consider theoretical implications for the literature on creative idea evaluation.

First, we theoretically contribute to the literature on the bias against novelty (Mueller & Yin, 2021; Rietzschel et al., 2019; Zhou et al., 2019). While past research has determined that decision-makers' failure to recognize creative ideas is because of the bias against novelty, we know relatively little about its consequences (Criscuolo et al., 2017; Ng et al., 2022; Piezunka & Dahlander, 2015). While past work demonstrates how creators may react to being recognized for their creativity (Berg, 2022; Deichmann & Baer, 2022; Harrison et al., 2022), we remain in the dark as to how creators or other perceivers may view and react to the decision-maker's failure – an evaluation occurrence which is more likely to occur. We add to this nascent literature on the consequences by demonstrating that there are unintentionally negative interpersonal consequences of failing to recognize a creative idea. In particular, we demonstrate that failing to recognize a creative idea negatively affects the relationships between decision-makers and their team members by making the decision-maker seem less competent and warm and by reducing the trust team members put into the decision-maker. Lack of trust is something that decision-makers want to steer clear of given that it has a host of well-known undesirable consequences, such as affecting the quality of their relationships (Dirks & Ferrin, 2022; Dulebohn et al., 2012; Martin et al., 2016), engagement in undesirable work behaviors and lowered job performance (Colquitt et al., 2007; Dirks & De Jong, 2022; Breuer et al., 2016; Lee et al., 2018).

Additionally, we add another reason underlining the importance for decision-makers to learn to recognize creative ideas. Obviously, by failing to recognize a creative idea, decision-makers hamper progress as the idea will not develop into a potentially successful innovation. However, we show that failing to recognize creative ideas also reduces the trust others place in decision-makers, which may have downstream negative consequences. We already know that when supervisors reject creative ideas, it lowers idea creators' creative self-efficacy and, in turn, prevents them from generating additional creative ideas (Ng et al.,

2022), which indicates that the employee whose idea was rejected no longer believes that she is capable of performing the task required and withdraws from the team by reducing her contributions. However, our research implies that even if this employee has another creative idea and theoretically would like to voice it, they might be less likely to do so because they don't trust the decision-maker.

Next, we theoretically contribute to the emergent research documenting the consequences of being engaged in the idea journey (Khessina et al., 2018; Lua et al., 2023). While current research has demonstrated the interpersonal judgments of individuals based on the generative actions they take, or their perceived creative potential (e.g. Carnevale et al., 2021; Koseoglu et al., 2023; Mueller et al., 2011), it remains unclear as to how these findings may apply to other important actors in the idea journey, such as idea evaluators – the gatekeepers of creative ideas. Thus, we focus our attention on decision-makers at work, a role most associated with evaluating creative ideas at work (Mueller et al., 2018), and find that perceivers can form attributions about how warm and competent decision-makers are, based on a single moment of creative idea labelling, which meaningfully affects the trust they have in the decision-maker. This has significant implications for how decision-makers need to approach the way they explicitly evaluate ideas at work, because this responsibility no longer impacts task-oriented outcomes such as the development of a successful innovation, but also impacts relationship-oriented outcomes, which has the potential to impact how they subsequently work with the very people who are constantly observing their actions at work.

### **Limitations and Future Directions**

A few limitations inevitably arise from our chosen study design that could be addressed in future research. First, in our bid to focus on how trust is impacted specifically by the mere act of labelling an idea's creativity, our experimental manipulations were unable to incorporate other potential element of an idea evaluation, such as evaluation valence (Zhou &



Hoever, 2018) or developmental content (Zhou, 2003), which could also affect levels of trust. As we establish the sole effect of creative idea labelling on trust, future research could consider how different configurations of evaluation elements may interact to impact trust, and better demonstrate the complex nature of how trust may be developed in idea evaluation processes. For instance, the extent to which successful creative idea labelling may impact trust might be enhanced if the evaluator also provided developmental suggestions that could be enacted upon, as it helps the creators to advance the idea further along the idea journey. However, creators could also take the presence of developmental suggestions to mean that the idea may be seen as imperfect to the evaluator, which is conflicting to the evaluator's initial creative labelling of an idea, thus leading to lower trust.

Second, our findings demonstrate that a single act of creative idea labelling was able to influence perceivers into forming impressions and thereafter trust in the decision-makers. While we aimed to generalize these findings through the use of a field survey to show that generalized impressions of a supervisor's ability to identify creative ideas was associated with trust, we were unable to ascertain if these effects may fluctuate over time, and whether perceivers could be desensitized to the effects of successful creative idea labelling to impact the trust they have in decision-makers through repeated interactions. It is possible that over time, as perceivers are more aware whether a decision-maker is consistently able to recognize an idea's creativity, that they are less likely to rely on creative idea labelling to determine if they should trust in the decision-maker or not. However, as creators may experience the creative cliff illusion (Lucas & Nordgren, 2020), i.e. the expectation of their own creativity to decline over time, it is also possible that even if an evaluator is consistent in recognizing the creativity of ideas, there might be constant misalignment because of the creator's inability to do so. Therefore, we might expect creative idea labelling as an influential factor affecting creator's trust of evaluators, but not so much in third-party observers, who are less likely to

experience the creative cliff illusion. Future research could use a field setting to separately examine how trust in decision-makers is differentially affected by creative idea labelling over multiple feedback meetings over time in creators and third-party perceivers. This also answers the call for more research examining person-environment interaction effects on outcomes associated with creativity (Zhou & Hoever 2022).

Third, our findings were focused specifically on how the explicit labelling of an idea's creativity may affect interpersonal judgments towards the evaluator. But in reality, the evaluation of an idea is often coupled immediately with the decision to implement a creative idea (M. D. Mumford et al., 2002). Thus, an emerging question that our research design could not address is how implementation decisions may also enhance or attenuate the effects of creative idea labelling on trust. We expect a Catch-22 situation: decision-makers who overlook creative ideas are unlikely to implement them. But even if they do recognize creative ideas, they are likely to become averse and reject these ideas because of the economic mindset they have (Mueller et al., 2018). Thus, future research might consider what factors may mitigate the detrimental effects of failing to implement creative ideas, or what might amplify the creative idea labelling, so that decision-makers do not lose the trust when they are unable to recognize creative ideas.

Last but not least, our findings sought to demonstrate the effects of idea labelling towards interpersonal outcomes, by examining trust as a proxy. A limitation however, is the potential theoretical overlap between the mediator mechanisms of warmth and competence perceptions, and the outcome variable of trust. Our findings from Study 2 revealed high intercorrelations between the competence and warmth judgments employees held, and the trust they had towards their decision-maker. Although confirmatory factor analyses and multicollinearity checks established the empirical distinctiveness of these constructs, this overlap raises concerns about theoretical separation between them. Indeed, trust can be

decomposed into affective-based trust and competence-based trust (Dirks & Ferrin, 2002), which inevitably correspond to perceptions of warmth and competence. Thus, a potential concern arises as to whether our mediators are simply components of trust, instead of distinct predictors of trust. Despite this potential overlap, our findings may serve as a useful initial benchmark on the broad interpersonal judgments and relational attitudes from observing a decision-maker's explicit idea labelling.

Importantly, our findings consistently suggest that individuals perceive a manager as less warm *and* competent when they fail to recognize a creative idea. While warmth and competence perceptions may be compensatory in stereotypical judgments (Judd et al., 2005; Yzerbyt et al., 2008), we identify a situational cue which enables individuals to form *complimentary* negative judgments towards a decision-maker based on their own actions. Based on these initial findings, future studies could focus on how these negative perceptions of a decision-maker may lead employees to redefine their relationship with the decision-maker in the creative process. For instance, failing to recognize creative ideas may lead employees to be resistant in accepting decision-makers as potential collaborators to transform an idea together. In situations where organizations are looking to flatten hierarchical structures to boost innovation performance (Lee, 2022), this resistance may not be ideal as it reinforces the decision-maker's role as passive evaluators, rather than giving them the opportunity to be active co-creators.

### **Conclusion**

While it is well established that decision-makers may fail to recognize creative ideas because of varying biases against novelty, it is unclear as to whether they face any proximal consequences in doing so. The results of the present research offer initial evidence that creators are likely to have lower trust in decision-makers when they fail to recognize creative ideas, as opposed to when they do, and that is because creators interpret the failure to

recognize as a signal of the decision-maker having low competence and low warmth. These effects are exacerbated as ideas become more creative and is sustained even when the perceivers are third parties with minimal involvement in the creation of the idea. Here, we establish a meaningful social consequence to decision-makers in failing to recognize creativity to shed light on the social experiences of decision-makers as they navigate being gatekeepers of creativity at work.

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## Appendices

### Appendix 3.1: Study 3: SAOM Analyses and Models of Alternative Explanations

#### SAOM Models

In the interest in clarity, we opted to present the pertinent effects relevant to our research question in the main manuscript. All p-values were calculated using the `pnorm` R package using the parameter and standard error values.

Table S1 presents the full results including other structural and behavioral parameters that were included to assist with model fit. We also sought to test for the reciprocity heuristic to replicate findings in Study 1 and 2 that people with a high sense of power do not rely on the reciprocity heuristic when forming advice meta-perceptions about others. Table S2 presents the model that includes this interaction, and we do not find the interaction effect,  $b = -.05, p = .977$ . This replicates the findings in our previous study, where individuals who feel powerful do not appear to rely on reciprocity heuristics to form dyadic advice meta-perceptions.

Table S3 presents a model to test for alternative approaches in conceptualizing false meta-perceptions in a SAOM. First, we tested for how a perceiver's sense of power may interact with the target's actual advice seeking behavior to influence the perceiver's meta-perception. We do not find support for an interaction effect,  $b = .37, p = .493$ , suggesting that whether or not perceivers have a high sense of power, they are not reliant on target's behaviors in forming their meta-perceptions about who relies on them for advice.

Second, we also tested for how a perceiver's sense of power may interact with the number of false advice meta-perceptions they have to influence a change in their sense of power. We do not find support in this instance,  $b = .42, p = .161$ , suggesting that as one has a

high sense of power and possesses false advice meta-perceptions, they are not likely to consequently increase their sense of power.

### **Explanation of SAOM effects**

We present a short explanation for all effects used in our models here. All objective function effects equally apply to creation and maintenance of ties, even if not explicitly stated in the paragraphs below.

The '*period x*' rate effects are the intercepts for the rate functions. For instance, a value of 19 means that, on average, each person in the network is given 19 choices between observations to change their network (or for the behavior rate function, the value is the average number of choice opportunities given to actors to change their sense of power).

The '*outdegree/density*' parameter is the intercept of the objective function. We advise against simple interpretations of the parameter because it is highly dependent on other parameters in the model. However, for those wanting to interpret it, a negative parameter means that, everything being equal, actors prefer to have fewer ties rather than more ties. In this context, this can represent that forming advice relationships is costly (or that advisors are difficult to find) and thus ties are more likely to not be formed (and broken) than be formed (and maintained) – given everything else being equal.

The '*reciprocity*' parameter modes the propensity to form ties based on incoming ties. A positive effect means that, everything else being equal, a tie is more likely to be formed and maintained if it is reciprocated by the alter.

The '*transitive closure*' parameter is modeled with the geometrically weighted edgewise shared partner statistic (Snijders et al. 2006, Hunter 2007, see the RSiena manual p.140 – effect 18a). This notation discounts the effects of having many shared partners and often leads to better model fit than assuming that every shared partner adds the same increase to the log-odds of forming a tie. A positive parameter means that advisors of advisors are

more likely to be asked for advice, and that you are more likely to perceive those who seek advice from you as being sought for advice by others who also seek advice from you. This aligns with the transitive nature of advice seeking ties. Given that advice implies a hierarchy in knowledge or skill, but also requires a certain social closeness, it was expected that ties form transitively and it is not surprising that they are perceived as such.

The '*indegree-popularity*' parameter models whether those with more incoming ties are more or less attractive for more incoming ties. A positive effect means that those with many incoming ties are more likely to attract more ties, while a negative effect would mean that they are less likely to get more ties. A positive effect could be explained by certain people either having a lot of skills or a general openness to help leading to them attracting ties, while negative parameters imply that people might get overloaded with requests, making it more likely that they deny giving support because of them helping already many other people. We included the parameter primarily to obtain better model fit by modeling otherwise unaccounted for heterogeneity in receiving ties.

'*Outdegree-activity*' is the opposite of *indegree-popularity*, that is, it models whether some people are more likely to send ties, based on the number of ties they are sending. A positive parameter implies that those sending or perceiving many ties are more likely to maintain a higher number of ties or seek even more advisors over time. Note that this effect alone makes it impossible to interpret the intercept ('outdegree' parameter) directly, because any tie change will affect both parameters. The parameter was included to obtain better model fit and modeling otherwise unaccounted for heterogeneity in sending ties.

The '*3-cycle*' parameter models the formation of situations where  $i$  might be more or less likely to send a tie to  $j$  based on  $j$  perceiving  $k$  as an advisee and  $k$  perceiving  $i$  as an advisee. The tie  $i$  to  $j$  would thus close a cycle of three nodes with  $i$  nominating  $j$  who is nominating  $k$  who in turn is nominating  $i$ . The effect was included to obtain better model fit.

*'Same ethnicity'* was based on a dyadic covariate matrix, indicating whether two nodes shared an ethnic identity (African/Black, Asian, Caucasian/White, Hispanic/Latin). Some people provided multiple ethnicities. They were set to share the ethnicity with all those that shared at least one ethnicity with them (e.g., a white Hispanic person was set to be homophilous to both white people and Hispanic people). Obviously, having multiple ethnicities is more complicated than that, however, the number of those cases was small, and ethnicity was not the target of study. Because we do not know the appearance of each individual nor their definitions of ethnicity beyond the provided labels and what they perceived the ethnicities of others to be, we used this inclusive definition for our modeling. A positive parameter indicates that ties are more likely to be formed between those sharing an ethnicity.

The *'gender perceiver'* effect models if men or women (no participant indicated a gender other than male or female) are more/less likely to send ties. The positive effect in Table S1 suggests that women report sending more advice seeking ties, and the corresponding negative effect for perceptions indicates that they perceive fewer people coming to them for advice.

The later might be accurate, because the *'gender target'* effect models whether people of a specific gender are more/less likely to be asked for advice or perceived to seek advice and is negative. Women are less often reported as advisors but there does not seem to be a gender difference in who is perceived as seeking advice. Thus, the model implies that either people under-report women seeking advice from them, men under-report seeking advice, or women over-report seeking advice. However, there did not seem to be a preference to seek advice or perceive advice within gender groups, as the *'same gender'* effect is not significant for either network in any of the models.

The '*power – perceiver*' effect captures whether those with more power are more likely (or less likely) seek advice or perceive advice ties. The negative effect of seeking advice ties means, that given everything else, they send fewer advice ties. The positive effect on perceiving ties means they report more ties.

The '*power – target*' effect captures if those with higher/lower power are more likely to be asked for advice or seen as advice seekers – neither turned out to be the case.

We included the interaction between perceiver's and target's power. No effect was found here. This again creates a mis-match to the advice seeking and perceiving. While those with more power perceive more ties, they were not more likely to be reported and are thus either having more false perceptions or are under-reported (the difference in parameters is strong here, with 0.03 vs 0.66). Likewise, while they claim to seek fewer ties, they are not significantly less likely to be perceived as seeking advice from others, although the parameter difference is less strong – -0.13 vs -0.33. We are aware that it is not generally advised to compare the parameter values between two different networks because all parameters somewhat interact with each other and given different intercepts or values of, say, reciprocity, small differences in parameters could mean even smaller or no difference in probability change of forming a tie. However, the model does imply a mismatch.

The '*perceiver meta-perception*' effect is the so-called entrainment or cross-product between the networks, that is, if  $i$  perceives  $j$  to as coming to  $i$  for advice, does that increase the probability for  $i$  to seek advice from  $j$ ? This turns out to be a strong, positive effect, perceiving some as coming to you for advice increases the probability to seek advice from them (odds ratio of  $\exp(2.8) = 16$ ). However, them perceiving you to come to them for advice does not affect actual advice seeking ('*target meta-perception*'), given everything else in the model.



Likewise, on the perception side, seeking advice from someone does increase the probability see them as coming to you for advice (*'perceiver advice seeking'*). While them reporting to come to you for advice does not actually increase the probability of you reporting them as coming to you, given everything else (*'target advice seeking'*).

In the behavior objective function, the *'linear growth'* and the *'quadratic growth'* parameters are the intercepts of the model, capturing general trends in the data. A negative value for linear growth means that, on average, people lowered their self-perceived power over time. A negative quadratic growth term means that those with high power were more likely to reduce in power and those with low power to increase, that is, there is regression to the mean.

The *'gender'* parameter models whether there are gender differences in self-perceived power, which was not significant. More of interest for our study, the *'indegree in perceiver advice seeking'* effect models whether having more people seeking advice from you leads to increases in power (it did not) and the *'outdegree in perceiver advice seeking'* effect models whether asking more people for advice increases or decreases power (it did not).

The *'outdegree in perceiver meta-perception'* parameter models whether perceiving more people as coming to you for advice increases power. It does not do so.

Lastly, the *'perceiver actual false meta-perception'* parameter in Table S3 models explicitly whether having false meta-perceptions (perceived ties that were not reported by the advice seeker) increases power. We sought to model this as an alternative approach to operationalizing false meta-perceptions. The effect was not significant.

**Table A3.1**

*Study 3: Stochastic Actor-Oriented Modelling on Consequences of Power and Advice Meta-perceptions over time (Full Model)*

Parameter	Perceiver Advice Seeking		Perceiver Meta-perception	
	Estimate	SE	Estimate	SE
Period 1 rate	18.99***	2.66	19.93***	4.38
Period 2 rate	10.11***	1.01	7.64***	.85
Period 3 rate	14.06***	1.73	17.83***	3.21
Outdegree (density/intercept)	-3.83***	.24	-3.38***	.25
Reciprocity	1.58*	.74	.70	.91
Transitive closure (gwesp)	1.37***	.11	1.41***	.17
Indegree-popularity	-.09	.07	-.23*	.11
Outdegree-activity	.36***	.05	.18**	.07
Reciprocal degree activity	-.16***	.04	-.29***	.06
dummy for period 2	-.41***	.09	-.26	.16
dummy for period 3	-.06	.09	-.33*	.15
3-cycles			-.05	.14
Outdegree-activity for period 1			.03	.02
Same ethnicity	.15*	.07	.22**	.08
Gender – perceiver (female = 1 before centering)	.27***	.08	-.24*	.12
Gender – target (female = 1 before centering)	-.18*	.07	-.03	.08
Gender – same	.07	.07	.13	.07
Power – perceiver	-.33**	.11	.66***	.20
Power – target	.03	.09	-.13	.12
Power – perceiver x power - target	-.23	.19	-.06	.32
Perceiver meta-perception	2.78***	.33		
Target meta-perception	.76	.80		
Perceiver advice seeking			3.16***	.46
Target advice seeking			1.52	.90
<b>Perceiver Sense of Power</b>				
Parameter	Estimate	SE		
Period 1 rate (intercept)	1.22***	.25		
Period 2 rate (intercept)	.70***	.16		
Period 3 rate (intercept)	.99***	.21		
Linear growth	-.31	.27		
Quadratic growth	-1.00***	.18		
Indegree in perceiver advice seeking	.08	.09		
Outdegree in perceiver advice seeking	-.03	.11		
Outdegree in perceiver meta-perception	.11	.13		
Gender	.05	.27		

Note: All convergence t-ratios <.07. Overall maximum convergence ratio = .17. Goodness of fit for indegree- and outdegree distributions as well as triad census for each period were satisfactory ( $p > .01$ ).

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Table A3.2**

*Study 3: Stochastic Actor-Oriented Modelling on Consequences of Power and Advice Meta-perceptions over time (Model with Reciprocity Heuristic)*

Parameter	Perceiver Advice Seeking		Perceiver Meta-perception	
	Estimate	SE	Estimate	SE
Period 1 rate (intercept)	18.45***	3.87	17.59***	5.32
Period 2 rate (intercept)	10.10***	1.16	7.25***	1.15
Period 3 rate (intercept)	13.81***	1.47	15.70***	4.27
Outdegree (density)	-4.30**	1.66	-3.13**	1.10
Reciprocity	.89	2.65	-.56	4.29
Transitive closure (gwesp)	1.38***	.15	1.54***	.27
Indegree-popularity	-.04	.16	-.28	.28
Outdegree-activity	.41*	.18	.19	.16
Reciprocal degree activity	-.17***	.04	-.25**	.09
dummy for period 2	-.42**	.13	-.20	.30
dummy for period 3	-.01	.18	-.49	.37
Indegree-activity			-.63	.66
Outdegree-activity for period 1			.05	.06
Same ethnicity	.15	.08	.18	.10
Gender – perceiver (female = 1 before centering)	.33	.20	-.34	.37
Gender – target (female = 1 before centering)	-.17*	.08	-.04	.09
Gender – same	.07	.07	.13	.10
Power – perceiver	-.24	.31	.94	1.65
Power – target	.02	.20	-.15	.19
Perceiver meta-perception	3.53	1.93		
Target meta-perception	1.61	3.33		
Power – perceiver X perceiver meta-perception	-.91	1.00		
Perceiver advice seeking			4.22	3.81
Target advice seeking			2.67	3.95
Power – perceiver X perceiver advice seeking			-.05	1.79
<b>Perceiver Sense of Power</b>				
Parameter	Estimate	SE		
Period 1 rate (intercept)	1.22***	.24		
Period 2 rate (intercept)	.70***	.15		
Period 3 rate (intercept)	.99***	.22		
Linear growth	-.33	.25		
Quadratic growth	-1.00***	.17		
Indegree in perceiver advice seeking	.09	.09		
Outdegree in perceiver advice seeking	-.03	.11		
Outdegree in perceiver meta-perception	.10	.13		
Gender	.05	.25		

Note: All convergence t-ratios < .04. Overall maximum convergence ratio = .10. Goodness of fit for indegree- and outdegree distributions as well as triad census for each period were satisfactory ( $p > .01$ ).

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Table A3.3**

*Study 3: Stochastic Actor-Oriented Modelling on Consequences of Power and Advice Meta-perceptions over time (Alternative approach to modelling false meta-perceptions)*

Parameter	Perceiver Advice Seeking		Perceiver Meta-perception	
	Estimate	SE	Estimate	SE
Period 1 rate (intercept)	18.60***	3.72	19.36***	3.27
Period 2 rate (intercept)	9.85***	1.12	7.37***	.87
Period 3 rate (intercept)	13.68***	1.60	17.09***	3.02
Outdegree (density)	-3.45***	.16	-3.47***	.30
Reciprocity	1.61	1.35	1.32	1.55
Transitive closure (gwesp)	1.33***	.11	1.66***	.21
Outdegree-activity	.05***	.01	.02*	.01
Reciprocal degree activity	-.14**	.05	-.25**	.09
dummy for period 2	-.39**	.12	-.05	.21
dummy for period 3	-.04	.11	-.15	.19
Reciprocity X transitive closure (gwesp)	-.09	.34		
Indegree-popularity			-.10***	.03
outdegree-activity for period 1			.03	.02
transitive closure for period 1 (gwesp)			.65***	.21
Same ethnicity	.13	.08	.18*	.09
Gender – perceiver (female = 1 before centering)	.30***	.10	-.24*	.11
Gender – target (female = 1 before centering)	-.16*	.07	.01	.08
Gender – same	.07	.07	.13	.08
Power – perceiver	-.28*	.13	.73***	.20
Power – target	.03	.10	-.11	.18
Power – perceiver X power - target	-.17	.22	-.10	.32
Perceiver meta-perception	2.89***	.32		
Target meta-perception	.52	1.48		
Power – perceiver X target meta-perception	-.56	.36		
Perceiver advice seeking			3.23***	.50
Target advice seeking			1.22	1.28
Power – perceiver X target advice seeking			.37	.54

Perceiver Sense of Power		
Parameter	Estimate	SE
Period 1 rate (intercept)	1.18***	.23
Period 2 rate (intercept)	.69***	.15
Period 3 rate (intercept)	.99***	.21
Linear growth	-.30	.21
Quadratic growth	-1.05***	.19
Outdegree in perceiver meta-perception	.43	.24
Perceiver actual false meta-perception	.42	.30
Gender	-.07	.25

Note: All convergence t-ratios < .07. Overall maximum convergence ratio = .17. Goodness of fit for indegree- and outdegree distributions as well as triad census for each period were satisfactory ( $p > .01$ ).

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

## Appendix 4.1: Study 2: Regression Analyses of Novelty and Usefulness Ratings as

### Moderator Proxy

#### Moderator: Novelty Rating

To test Hypothesis 1, we ran a moderated regression to examine the interaction effect of idea labelling and self-rated idea novelty on trust, by using PROCESS Model 1 in SPSS as recommended by Hayes (2017). Results indicate significant main effects of idea label,  $b = 2.36$ ,  $SE = .68$ ,  $p = .001$ , 95% CI [2.83, 4.69], and self-rated idea novelty,  $b = .33$ ,  $SE = .08$ ,  $p < .001$ , 95% CI [.17, .49]. Results replicate our previous findings in showing a significant interaction effect,  $F(1, 388) = 46.19$ ,  $p < .001$ ,  $R^2 \text{ Change} = .058$ . Simple slopes analyses indicate that when individuals perceive their idea as highly novel, the effects of Ashley labelling the idea as not particularly creative is much larger,  $b = -2.18$ ,  $t = -19.32$ ,  $p < .001$ , than when individuals perceive their idea as low in novelty,  $b = -.61$ ,  $t = -2.37$ ,  $p = .018$ .

To test the parallel mediation model, we conducted a first stage moderated mediation analysis using PROCESS Model 8 in SPSS as recommended by Hayes (2017). We used the same indicator coding as in Study 1b. The index of moderated mediation indicates that warmth and competence mediate the interaction effect on trust, warmth:  $b = -.21$ ,  $SE = .05$ , 95% CI [-.32, -.12], competence:  $b = -.48$ ,  $SE = .08$ , 95% CI [-.64, -.35]. The interaction between idea label and idea novelty negatively predicted perceptions of warmth,  $b = -.49$ ,  $SE = .10$ ,  $p < .001$ , 95% CI [-.69, -.28], which in turn predicted trust,  $b = .43$ ,  $SE = .04$ ,  $p < .001$ , 95% CI [.34, .51]. The interaction between idea label and idea novelty also negatively predicted perceptions of competence,  $b = -1.11$ ,  $SE = .13$ ,  $p < .001$ , 95% CI [-1.36, -.87], which in turn predicted trust,  $b = .43$ ,  $SE = .04$ ,  $p < .001$ , 95% CI [.36, .50]. As seen in Table A4.1, as an idea was perceived to be more novel, perceptions of competence decreased with a higher magnitude ( $b$  ranging from -.24 to -1.24) than perceptions of warmth, ( $b$  ranging from -1.12 to -1.57).

**Table A4.1**

*Study 2: Indirect effect of Perceived Managerial Competence and Perceived Managerial Warmth on Evaluator Trust at varying levels of Self-Perceived Novelty*

Self-Perceived Novelty	Perceived Managerial Competence			
	B	BootSE	BootLLCI	BootULCI
4.822	-.28	.10	-.47	-.09
5.832	-.76	.09	-.96	-.58
6.841	-1.25	.14	-1.54	-.98
Self-Perceived Novelty	Perceived Managerial Warmth			
	B	BootSE	BootLLCI	BootULCI
4.822	-1.14	.16	-1.46	-.83
5.832	-1.35	.17	-1.70	-1.02
6.841	-1.56	.20	-1.97	-1.18

#### Moderator: Usefulness Rating

To test Hypothesis 1, we ran a moderated regression to examine the interaction effect of idea labelling and self-rated idea usefulness on trust, by using PROCESS Model 1 in SPSS as recommended by Hayes (2017). Results indicate significant main effects of idea label,  $b = 1.33$ ,  $SE = .59$ ,  $p = .025$ , 95% CI [.17, 2.50], and self-rated idea usefulness,  $b = .33$ ,  $SE = .08$ ,  $p < .001$ , 95% CI [.18, .48]. Results replicate our previous findings in showing a significant interaction effect,  $F(1, 388) = 36.57$ ,  $p < .001$ ,  $R^2 \text{ Change} = .047$ . Simple slopes analyses indicate that when individuals perceive their idea as highly useful, the effects of Ashley labelling the idea as not particularly creative is much larger,  $b = -2.87$ ,  $t = -18.40$ ,  $p < .001$ , than when individuals perceive their idea as low in usefulness,  $b = -1.46$ ,  $t = -9.29$ ,  $p < .001$ .

To test the parallel mediation model, we conducted a first stage moderated mediation analysis using PROCESS Model 8 in SPSS as recommended by Hayes (2017). We used the same indicator coding as in Study 1b. The index of moderated mediation indicates that warmth and competence mediate the interaction effect on trust, warmth:  $b = -.23$ ,  $SE = .04$ , 95% CI [-.31, -.15], competence:  $b = -.35$ ,  $SE = .06$ , 95% CI [-.48, -.24]. The interaction between idea label and idea usefulness negatively predicted perceptions of warmth,  $b = -.54$ ,  $SE = .09$ ,  $p < .001$ , 95% CI [-.72, -.35], which in turn predicted trust,  $b = .42$ ,  $SE = .04$ ,  $p$

<.001, 95% CI [.34, .51]. The interaction between idea label and idea usefulness also negatively predicted perceptions of competence,  $b = -.80$ ,  $SE = .12$ ,  $p < .001$ , 95% CI [-1.03, -.57], which in turn predicted trust,  $b = .44$ ,  $SE = .03$ ,  $p < .001$ , 95% CI [.38, .51]. As seen in Table A4.2, as an idea was perceived to be more useful, perceptions of competence decreased with a higher magnitude ( $b$  ranging from -.38 to -1.17) than perceptions of warmth, ( $b$  ranging from -1.08 to -1.58).

**Table A4.2**

*Study 2: Indirect effect of Perceived Managerial Competence and Perceived Managerial Warmth on Evaluator Trust at varying levels of Self-Perceived Usefulness*

Perceived Managerial Competence				
Self-Perceived Usefulness	B	BootSE	BootLLCI	BootULCI
4.423	-.38	.09	-.56	-.21
5.543	-.77	.09	-.96	-.59
6.662	-1.17	.14	-1.45	-.90
Perceived Managerial Warmth				
Self-Perceived Usefulness	B	BootSE	BootLLCI	BootULCI
4.423	-1.08	.15	-1.39	-.80
5.543	-1.33	.17	-1.68	-1.01
6.662	-1.58	.20	-1.99	-1.20