Why Seeing Growth Mindset at Work Matters, Especially for Those Who Grew Up with Little: First-Generation Employees Feel Comfortable Asking for Advice When They Believe Their Manager is an Incremental Theorist

Inhyun Han
Seoul, South Korea

M.S. in Management, Korea University, 2008
B.A. in English Language and Literature (Minor in Political Science), Hanyang University, 2005

A Dissertation presented to the Graduate Faculty
of the University of Virginia in Candidacy for the Degree of
Doctor of Philosophy

Department of Business Administration

University of Virginia
May 2019

ABSTRACT

Employees benefit when they ask their managers for advice, yet they are often reluctant to do so, especially if they come from disadvantaged backgrounds. In the present research, I integrate several distinct literatures to test a theoretical model that seeks to explain when and why individuals from disadvantaged backgrounds might feel reluctant to ask for advice. I first propose that people hold *meta-theories about their managers:* That is, they can believe that their manager is either an *incremental theorist* (someone who believes that intelligence can be nurtured and developed), or an *entity theorist* (someone who believes that intelligence is a fixed and stable trait). I broadly suggest that these meta-theories shape how comfortable individuals feel about advice-seeking. Specifically, I suggest that people generally feel more comfortable asking for advice when they hold an incremental meta-lay theory than when they hold an entity meta-lay theory. I then propose that this psychology applies particularly to those who come from working-class contexts, such as first-generation employees—individuals who are first in their family to gain a four-year college degree. I hypothesize that, relative to their continuing-generation counterparts, first-generation individuals are more likely to be guided by their meta-theories in deciding whether they would feel comfortable seeking advice. A survey (Study 1), and two experiments (Studies 2 and 3) found support for these propositions. Overall, this research illuminates how social class differences manifest within organizations and highlights the role of meta-lay theories in shaping people's inclination to seek advice, especially for individuals from working-class backgrounds.

Keywords: meta-lay theories, sense of belonging, advice-seeking, social class

ACKNOWLEDGEMENTS

I would first like to thank the chair of my committee, and my faculty advisor, Dr. Melissa Thomas-Hunt, for her endless support and guidance. She opened new opportunities for me, a student from another country. She is full of wisdom, and has taught me how to respect people. Her keen insight with regard to research, and her incredible support for my family and me, pushed me to complete this project.

Second, I would like to thank the co-chair of my committee, and my co-advisor, Dr. Peter Belmi, for his steadfast support and warm patience. He exemplifies scholarship. His sharp insights, with passion and a growth-mindset, have made this challenging intellectual journey extremely enjoyable. His encouragement was the key piece in helping me develop this dissertation in its current form.

I would also like to thank Martin Davidson, the other member of my committee. His insight and important research questions throughout the pursuit of my degree helped me develop this paper.

Andy Wicks and Saras Sarasvathy, leading scholars and mentors with huge hearts, encouraged me to enjoy the tough and rewarding intellectual journey at Darden. I feel indebted for their incredible support.

I would like to thank Patrice Kyger. The completion of this paper could not have been achieved without her help. She reviewed it so that readers will understand what I have argued.

I must thank my mother and my husband. I appreciate their incredible love for and patience with me, and their constant prayers. My mother's persistent faith and love enabled me to get through all sorts of obstacles during this process. To my sweet husband, Jaewoon Lim: your love, trust, and incredible support always made me try and stand again, despite all internal and external obstacles.

I also appreciate Jihye Kim, my mentor, who is full of persistence and faith in God. She is an incredible human being, and has encouraged me to believe our God since we first met. She never hesitates to give her time and love. I am blessed.

Finally, thank you to my lovely two sons, Hanyul Lim and Seonyul Lim. They make my life full of joy. They opened a new world for me, and allowed me to grow and develop there, as well.

TABLE OF CONTENTS

Why Seeing Growth Mindset at Work Matters, Especially for Those Who Grew Up with Little: First-Generation Employees Feel Comfortable Asking for Advice When They Believe Their Manager is an Incremental Theorist

Taylor just graduated from college a few months ago and is starting her professional career at a small management consulting firm in San Francisco. Like most new college graduates, Taylor feels incredibly excited about this next chapter in her life. Yet she also feels a bit anxious, because she has accomplished what no person in her family had previously done: She is the first person in her family to have attended and graduated from college. Now, two weeks into her new job, Taylor faces a dilemma: While working on her first project, she encounters an unfamiliar task, and she contemplates whether she should approach her manager for advice on how to resolve the task. How will she handle this situation? Will she feel comfortable asking her manager for advice?

Many scholars have suggested that one of the smartest things people can do in their professional careers is ask their manager for advice (Brooks, Gino, & Schweitzer, 2015; Pfeffer, 2010). Asking for advice not only allows people to acquire the knowledge and expertise they need (Brooks et al., 2015), but is also very flattering (Pfeffer, 2010) and provides people an opportunity to develop relationships with important others at the top of hierarchy (Forret & Dougherty, 2004; Ibarra, 1993; Lin, 1999). Indeed, employees who regularly seek out their manager to ask for their advice are able to climb the hierarchy faster, compared to employees who do not (Wolff & Moser, 2009). Yet surprisingly, despite the benefits of advice-seeking, research suggests that many individuals feel uncomfortable with the idea of asking their manager for advice (Lee, 1997; Nadler, Ellis, & Bar, 2003), especially if they come from disadvantaged backgrounds. For example, research suggests that those who are the first in their family to go to

college, like Taylor, tend to feel reluctant to ask for advice (Stephens, Hamedani, & Destin, 2014).

The goal of the present research is to begin to understand how first-generation individuals decide whether they feel comfortable approaching their manager for advice. I first propose that people hold *meta-theories about their managers* (Rattan, Savani, Komarraju, Morrison, Boggs, & Ambady, 2018): That is, they can believe that their manager is either an *incremental theorist* (someone who believes that intelligence can be nurtured and developed), or an *entity theorist* (someone who believes that intelligence is a fixed and stable trait; Dweck, 2006; Dweck & Leggett, 1988). I broadly suggest that these meta-theories influence how comfortable individuals feel about advice-seeking: I suggest that people generally feel more comfortable asking for advice when they hold a meta-theory that their manager is an incremental theorist (rather than when they hold a meta-theory that their manager is an entity theorist). I then propose that this psychology applies particularly to first-generation individuals, like Taylor. Specifically, I hypothesize that, relative to their continuing-generation counterparts, first-generation individuals are more likely to be guided by their meta-theories in deciding whether they would feel comfortable seeking advice.

Advice-Seeking in Organizations

What is advice-seeking?

Advice-seeking is the act of asking other people for assistance, opinions, suggestions or support (Alexiev, Jansen, Van den Bosch, & Volberda, 2010; Brooks et al., 2015; Hofmann, Lei, & Grant, 2009; Morrison, 2002). It is related to, but conceptually distinguishable, from feedback-seeking (e.g., Ashford, 1986). Although both types of behaviors involve information-seeking, feedback-seeking typically involves requesting opinions or evaluations regarding *past*

performance, whereas advice-seeking focuses on obtaining guidance and input for *current* issues or *upcoming* problems (see Brooks et al., 2015). Advice-seeking can also take many forms. For example, employees may seek advice to gain emotional support (Kim, Sherman, & Taylor, 2008; Payne & Huffman, 2005), or they may seek advice to gain a better understanding of how they can advance their career (Payne & Huffman, 2005).

In this research, my specific focus is *task-related advice-seeking*—the extent to which a person feels comfortable approaching their manager for advice on how to "solve a work-related problem" (Friedman, Carmeli, & Dutton, 2018, p.187). Seeking task-related advice has numerous benefits. Compared to employees who do not seek their managers' advice, employees who do so are rated as better and more competent employees (Brooks et al., 2015; Larrick & Soll, 2006), in part because they make improved decisions (Bamberger, 2009; Bolino, 1999; Cornally & McCarthy, 2011; Hansen, 2002), have a better understanding of their role expectations (Bamberger, 2009; Kadushin, 2012; Wolff & Moser, 2009), and are more visible to the decision-makers who can influence their careers (Forret & Dougherty, 2004; Lee, 1997). Organizations also benefit when employees seek and share advice with each other. Task-related advice-seeking facilitates knowledge-sharing between employees, improves the quality of decision-making during team processes, and reduces costs associated with formal training and development (Bolino, 1999; Geller & Bamberger, 2012; Hansen, 2002; Kim & Lee, 2006).

Factors that affect advice-seeking

Surprisingly, very little work has been done on the decision to seek advice (cf. Brooks et al., 2015; Gino, Brooks, & Schweitzer, 2012). Prior advice research has largely focused either on how individuals give advice (Feng & Magen, 2016; Jonas & Frey, 2003, Jonas, Schulz-Hardt, & Frey, 2005; Kray, 2000; Kray & Gonzalez, 1999; Rader, Larrick, & Soll, 2017; Schaerer, Tost,

Huang, Gino, & Larrick, 2018), or on how individuals receive and implement advice (e.g., Gino & Moore, 2007; Gino et al., 2012; Tost, Gino, & Larrick, 2012). Recognizing this gap in the literature, some scholars have begun to explore the psychology underlying the decision to seek advice. This emerging area of research has found that people often feel reluctant to seek advice because they worry that requesting advice will make them look incompetent (Brooks et al., 2015; see also, Lee, 1997; Rosette, Mueller, & Lebel, 2015). Related research has also found that people tend to seek advice when they feel anxious (Gino et al., 2012; see also Cooper, 1991; Gibbons, Sniezek, & Dalal, 2003), or when they face complex problems (Schrah, Dalal, & Sniezek, 2006; Sniezek & Buckley, 1995), and in those cases, they tend to approach colleagues whom they judge as competent, trustworthy, and accessible (Hofmann et al., 2009; Yaniv & Kleinberger, 2000).

Notably, these past studies have not directly investigated what makes people feel *comfortable* with the process of advice-seeking, which is the focus of the present investigation. I focus on comfort because I view it as an important precursor in the decision to seek advice. It seems reasonable to expect that the extent to which Taylor feels motivated to ask for advice would likely depend, in part, on whether she feels comfortable doing so (Katz, 1960; Newman, 1990; Walton & Cohen, 2007)**.** Furthermore, to my knowledge, most of past studies on advice-seeking tend to examine contexts where advisers and advisees are peers with relatively equal status (e.g., Brooks et al., 2015; Hofmann et al., 2009; Van der Vegt, Bunderson, & Oosterhof, 2006). In this paper, I incorporate hierarchy to our investigation and examine the conditions that make employees more or less comfortable seeking their manager's advice. Managers serve as key gatekeepers in organizations (Stephens, Markus, & Phillips, 2014), and therefore how employees approach their relationships with these gatekeepers can have substantial implications.

Here, I test a previously unexplored hypothesis in the advice literature, and propose that people's meta-lay theory is one important but understudied characteristic that shapes how comfortable employees feel with advice-seeking.

A New Hypothesis: Meta-Lay Theories Shape People's Inclination to Seek Advice

A lay (or implicit) theory of intelligence refers to a person's philosophy regarding the nature of intelligence (Blackwell, Trzesniewski, & Dweck, 2007; Dweck, 2006; Dweck & Leggett, 1988; Dweck & Master, 2009, Dweck, 2013; Elliott & Dweck, 1988; Hong, Chiu, Dweck, Lin, & Wan, 1999). Certain people are incremental theorists: They subscribe to the view that intelligence is malleable and fundamentally believe that intelligence can be nurtured and developed. In contrast, other people are entity theorists: They subscribe to the view that intelligence is fixed and fundamentally believe that a person's intelligence is largely unchangeable (Rattan, Good, & Dweck, 2012).

Past research has found that people's personal beliefs regarding the nature of intelligence have important consequences for their motivation and behavior (see Yeager & Dweck, 2012, for a review). For example, when people subscribe to the view that intelligence is malleable, they tend to demonstrate resilience in the face of adversity (Dweck, 2013; Zeng, Hou, & Peng, 2016) because they see challenges and setbacks as opportunities to learn and improve. In contrast, when people subscribe to the belief that intelligence is fixed, they respond to adversity with defensiveness and hostility (Blackwell et al., 2007; Dweck, Walton, & Cohen, 2011; Hong et al., 1999; Nussbaum & Dweck, 2008). Research has also shown that these personal theories can shape how people wield their authority at work. For example, when managers subscribe to the belief that ability can grow and develop, they support training and development initiatives in the workplace, and see mistakes as opportunities to coach their employees (Heslin, VandeWalle, &

Latham, 2006). In contrast, when managers view ability as an innate gift, they focus their energies on identifying "star" employees (Heslin, 2009, p.240), and are quicker to form stereotypes when their employees make mistakes (Heslin, 2009; Rattan et al., 2012).

Emerging work has raised the intriguing possibility that just as people have their own lay theories or mindsets, they may also be aware that others hold such beliefs. These are called *meta-lay theories* (Rattan et al., 2018). Meta-lay theories are *beliefs about other people's mindsets*; are different from people's beliefs about the larger institutional or organizational context (e.g., Murphy & Dweck, 2010; Emerson & Murphy, 2015); and do not necessarily indicate the actual mindsets of others (Haimovitz & Dweck, 2016; Leslie, Cimpian, Meyer, & Freeland, 2015; Park, Gunderson, Tsukayama, Levine, & Beilock, 2016; Rattan et al., 2012). Rattan and colleagues (2018) argued that meta-lay theories also guide people's behaviors, independent of their own personal views. For example, they found that when female students in STEM fields believed that their professors were the type of people who thought that everyone had scientific potential (a universal metatheory), they tended to persist and achieve higher grades.

Throughout this research, when I speak of meta-lay theories, I am referring to the beliefs that employees hold about their manager's implicit theories of intelligence: Do they view their manager as an incremental theorist (one who sees intelligence as a malleable and expandable quality)? Or do they see their manager as an entity theorist (one who sees intelligence as a stable trait)? Although employees may rarely have direct access to their manager's true philosophies (Reich & Arkin, 2006), my pilot study suggests that they nevertheless *do* form beliefs as to whether their manager is an incremental or entity theorist (see Table 1), and, as I explain below, I contend that these beliefs affect their inclination to seek advice.

I propose that employees would feel more comfortable asking their managers for advice when employees hold an incremental meta-lay theory (rather than when they hold an entity meta-lay theory). When employees see their manager as an entity theorist (i.e., *when they hold an entity meta-lay theory*), they may become preoccupied with trying to appear smart or competent to their manager (Reich & Arkin, 2006), which in turn could lead them to feel uncomfortable with the idea of asking questions or sharing task-related concerns (Lee, 1997). In contrast, when people see their manager as an incremental theorist (i.e., *when they hold an incremental meta-lay theory*), they may perceive their manager as a person who sees potential in all people (Dweck, 2006) and as someone who would be reasonably open to investing time and resources to help an employee who is genuinely curious to learn. In other words, when employees see their manager as an incremental theorist, they may come to believe that they are valued, accepted, and respected in the workplace—that they *belong* at work (Good, Rattan, & Dweck, 2012; Yeager et al., 2016). When employees believe that they belong at work, they experience a sense of psychological safety that gives them the courage to ask for advice when they feel the need to do so (Good et al., 2012; Rattan et al., 2018). Based on this reasoning, I propose our first two hypotheses:

H1. People would feel more inclined to seek task-related advice when they hold an incremental meta-lay theory (i.e., when they believe that their manager has an incremental view of intelligence) than when they hold an entity meta-lay theory (i.e., when they believe that their manager has an entity view of intelligence).

H2. Sense of belonging will mediate the relationship between meta-lay theory and inclination to seek advice.

Meta-Lay Theories and Social Class: Meta-Lay Theories are Particularly Important for Individuals from Disadvantaged Class Backgrounds

In the previous section, I argued that people would feel more inclined to seek advice when they hold an incremental meta-lay theory as opposed to when they hold an entity meta-lay theory. In this section, I will explain why I believe this psychology may apply more strongly to first-generation employees, such as Taylor in our opening example. Consistent with other scholars who study social class (Fiske & Markus, 2012; Stephens & Townsend, 2013; Stephens, Markus, & Phillips, 2014), I use a *sociocultural perspective* and conceptualize social class as a socially and historically-constructed environment that contains a set of culture-specific ideas and practices. Specifically, I ground my predictions on Cultural Mismatch Theory (Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012; Stephens, Townsend, Markus, & Phillips, 2012) to explain why first-generation individuals are particularly likely to be guided by their meta-lay theories in determining whether they feel comfortable seeking advice.

Cultural Mismatch Theory. One unseen and relatively understudied marker of social advantage in US society is whether a person has parents who went to a four-year college (Stephens, Fryberg, et al., 2012). Although individuals from underrepresented backgrounds now have unprecedented opportunities to attend American colleges and universities, significant disparities continue to exist between individuals who are the first in their family to go to college (*i.e., first-generation individuals)* and individuals with parents who attended a four-year college (i.e., *continuing-generation individuals*). For example, compared to their continuing-generation counterparts, first-generation college students are more likely to struggle academically (Pascarella, Pierson, Wolniak, & Terenzini, 2004), drop out (Riehl, 1994; Stephens, Fryberg, et al., 2012), and face significant barriers in obtaining elite and high-earning post-graduate jobs

(Rivera, 2015).

Proponents of cultural mismatch theory suggest that these social disparities arise when cultural norms in mainstream institutions exclude the norms prevalent among under-represented social groups (for a review, see Stephens, Markus, & Phillips, 2014). According to these scholars, schools and professional workplaces in the United States tend to promote and scaffold an "independent model of the self" (Stephens, Fryberg, et al., 2012, p.1180), a way of being that defines a normatively appropriate person as somebody who is agentic, separate from others, and focused solely on their own personal motives, goals, and preferences (Markus & Kitayama, 2003; Stephens, Dittman, & Townsend, 2017). For example, in middle-class professional firms, managers tend to value employees who ask questions, take charge, and who confidently express ideas and opinions (Anderson, Brion, Moore, & Kennedy, 2012; Anderson, John, Keltner, & Kring, 2001; Anderson & Kilduff, 2009; Kennedy, Anderson, & Moore, 2013; Van Kleef, Homan, Finkenauer, Gündemir, & Stamkou, 2011). However, these middle-class standards of what makes a good employee can create significant discomfort for first-generation individuals, who are instead socialized and guided by an "interdependent model of the self" (Stephens, Fryberg, et al., 2012, p.1180)—a way of being that defines a normatively appropriate person as someone who adjusts to the context, connects with others, and responds to other people's needs, preferences, and interests (Stephens, Markus, & Phillips, 2014).

***Meta-Lay Theories and First-Generation Individuals*.** Because first-generation individuals are less familiar with the independent model of the self so often promoted in middle-class professional settings, they may feel they do not have a good understanding of the "rules of the game" (Bourdieu, 1990, p.64; see also Bourdieu, 1973; Ridgeway, 2014), and feel uncertain about the "right way" to act in such settings (Stephens, Markus, & Phillips, 2014, p.627). For

example, first-generation college graduates might not know how to dress appropriately in American corporate culture; likewise, they may not know that they are supposed to ask for advice when they are unsure about what to do, unlike their continuing-generation counterparts, who regularly hear from their parents, teachers, and professors that they should seek advice when they need it (Kim & Sax, 2009; Lareau, 2011). Indeed, for first-generation individuals, a central part of their experience in professional settings is confronting the question of belonging uncertainty—whether they are accepted, valued, or respected by others in their social environment (Stephens, Hamedani, & Destin, 2014; Stephens, Brannon, Markus, & Nelson, 2015; Stephens, Townsend, Hamedani, Destin, & Manzo, 2015; Walton & Cohen, 2007, 2011).

I propose that one situational cue which they may use to navigate this uncertainty is whether they believe that their manager is an incremental theorist or an entity theorist. When social cues lead first-generation individuals to believe that their manager is an entity theorist, that belief may raise in them the expectation that their manager only cares about geniuses and stars, and that people like them (who have had to work hard to attain their position) are not valued as highly. In other words, an entity meta-lay theory may lead them to question whether they "fit in" (Walton & Cohen, 2007, p.83), and subsequently undermine their sense of belonging and inclination to seek advice. However, when first-generation employees believe that their manager is an incremental theorist, they may take it as a sign that it is acceptable to ask for advice, because their manager is the type of person who genuinely cares, values, and supports people. In other words, an incremental meta-lay theory may affirm their sense of belonging at work (Rattan et al., 2018), and, in turn, increase their inclination to seek advice.

Meta-Lay Theories and Continuing-Generation Individuals. For continuing-generation individuals, I suspected that their inclination to seek advice would be far less affected by their

meta-lay theories, for at least two reasons. First, research suggests that "fitting in" in the workplace is not a major concern for members of non-stigmatized groups (Stephens, Fryberg, et al., 2012; Stephens, Markus, & Phillips, 2014; Walton & Cohen, 2007, 2011). Second, research suggests that relative to first-generation individuals, continuing-generation individuals are more likely to be taught the value of advice-seeking much earlier in life (Calarco, 2014), and are more likely to practice it throughout their lives (Asser, 1978; Boulton, Tuckett, Olson, & Williams, 1986; Calarco, 2011; Kim & Sax, 2009; Lareau, 2011; Stephens, Markus, & Phillips, 2014). Thus, it is likely that continuing-generation individuals would feel comfortable with seeking advice, irrespective of whether they believe that their manager is an incremental theorist or an entity theorist.

Taken together, the research reviewed above led us to propose the following hypotheses:

H3. Class background will moderate the relationship between meta-lay theories and inclination to seek advice, such that this relationship will be stronger among first-generation individuals than among continuing-generation individuals.

H4. The Meta-Lay Theory × Class Background interaction on inclination to seek advice will be mediated by sense of belonging.

Overview of Research

I conducted three studies to test our theoretical arguments. In Study 1, I conducted the first empirical test of our proposed hypotheses by using a survey among working adults, providing an externally valid test of our hypotheses. In Studies 2 and 3, I conducted an experiment, providing an internally valid test of our hypotheses.

This research contributes to the literature in at least three ways. First, my research contributes to the relatively new and understudied concept of meta-lay theories (Rattan et al.,

2018) and integrates it, for the first time, with the literature on the decision to seek advice (Brooks et al., 2015; Hofmann et al., 2009; Yaniv & Kleinberger, 2000). Here, I show that meta-lay theories are a subtle but powerful predictor of people's inclination to seek advice at work, providing novel insights on the psychology of advice-seeking. Second, I contribute to research on Cultural Mismatch Theory (Stephens, Fryberg, et al., 2012, Stephens, Townsend, et al., 2012, Stephens, Hamedani, & Destin, 2014). Much of the previous work on Cultural Mismatch Theory focuses on the experiences of first-generation individuals in school and educational settings; here, I examine their experiences at work and organizational settings. In so doing, I expand our understanding of how people's social class backgrounds shape the way people navigate their professional work environments. Finally, this research contributes to a growing body of work that seeks to understand how organizations may inadvertently contribute to persistent inequality (Belmi & Laurin, 2016; Stephens, Markus, & Phillips, 2014). Specifically, my work suggests that when first-generation individuals come to believe that their manager is an entity theorist, they may be dissuaded from seeking advice, and thereby miss not only important knowledge that could help them be more effective in their jobs, but also opportunities to establish close relationships with their superiors (Brooks et al., 2015).

Study 1: Survey of Working Adults

The goal of Study 1 was to conduct a preliminary test of my theoretical arguments by using a non-experimental survey of employed adults, providing some degree of external validity for our hypotheses. In this survey, I recruited first-generation and continuing-generation working adults and asked them how much they believe that their manager is an incremental theorist (i.e., their meta-lay theory), how much they felt they belonged at work, and how comfortable they were in asking their manager for task-related advice.

In addition to testing our theoretical arguments, I examined an alternative mechanism. Prior research suggests that individuals are reluctant to seek advice when they worry about appearing competent in the eyes of others (Brooks et al., 2015), and some work suggests that first-generation employees may feel this self-presentation concern more strongly, compared to their continuing-generation counterparts (Croizet & Claire, 1998; Stephens, Fryberg, et al., 2012; Terenzini, Springer, Yeager, Pascarella, & Nora, 1996). Therefore, I also measured competence concerns in this study, and examined the possibility that when employees believe that their manager is an entity theorist, they may feel concerned about appearing competent to their managers, which in turn, undermines their inclination to seek advice. I further explored whether this alternative mechanism might operate more strongly for first-generation employees than for continuing-generation employees.

Method

Participants. I recruited participants from Amazon Mechanical Turk—a crowdsourcing platform that offers access to populations more representative and more diverse than traditional college samples (Buhrmester, Kwang, & Gosling, 2011). To reach my target population (i.e., working adults) on Amazon Mechanical Turk, I first recruited 4,800 participants and paid each of them 25 cents to complete an initial pre-screen survey. Here, I asked participants questions about their highest educational attainment (1 = *some high school*, 2 = *high school*, 3 = *some college*, 4 = *college degree*, 5 = *graduate/professional degree*), whether they were currently employed (0 = *no*, 1 = *yes*); whether they were a college/graduate student (0 = *no*, 1 = *yes*); whether they reported to a manager or supervisor (0 = *no*, 1 = *yes*); and the number of times they encountered work-related problems every week (1= *never/very rarely*, 2 = *occasionally*, 3 = *frequently*=, 4 = *almost every day*, 5 = *several times a day*).

From this initial pool, 241 individuals met the eligibility criteria. These participants reported that they were not students, were gainfully employed, had a manager or supervisor at work and, at the very least, tended to frequently encounter task-related problems at work. These participants received an invitation to complete the main survey a few days after completing this pre-screen; I did not tell them that that they had been selected on the basis of their responses to the intake survey. In all, 236 qualified participants accepted the invitation and completed the survey (98% of those invited).

Prior to data analysis, I excluded 11 participants whose answers to the educational attainment question in the main survey did not match what they reported in the prescreen. Thus, our final sample included 225 participants (45.78% female, M_{age} = 34.97, SD_{age} = 8.55). Results were virtually identical when I analyzed the entire sample (see Supplemental Online Material [SOM]). Following prior research (Housel & Harvey, 2009; Somers, Woodhouse, & Cofer, 2004; Stephens, Markus, & Townsend, 2007), I classified participants as first-generation if they reported that neither of their parents attended college (n = 100) or continuing-generation (n = 125) if they reported that at least one parent did. I used this approach across all three studies. Table 2 provides a more comprehensive description of participants across studies.

Procedure. Participants completed a battery of measures designed to gauge their beliefs, personality, and experiences at work. I describe these measures below. All materials and exact item wordings are available in the appendix.

Meta-lay theories. To capture our key construct, I modified the Implicit Theories of Intelligence scale (Hong et al., 1999) and assessed the extent to which participants believe that their manager is an incremental (vs. an entity) theorist. Participants rated their agreement with eight items: [I think my manager seems to believe that…] 1) “people have a certain amount of

intelligence, and they can't really do much to change it"; 2) "people's intelligence is something that can't be changed very much"; 3) "people can't really change how intelligent they are"; 4) "people can learn new things, but they can't really change their basic intelligence"; 5) "people can significantly change their intelligence level"; 6) "people can always substantially change how intelligent they are"; 7) "people can develop their intelligence"; 8) "people can change their intelligence considerably" (1 = *strongly disagree*, 7 = *strongly agree*). I created a composite after reverse-coding the first four items (α = .95), with higher scores reflecting stronger beliefs that their manager was an incremental theorist (i.e., an incremental meta-lay theory).

Sense of belonging. I asked participants whether their manager makes them feel that they belong in the company, using five items adapted from previous work (Good et al., 2012): [Does your manager make you feel…] 1) "that you belong at your company?"; 2) "like an outsider? (*reverse-coded*)"; 3) "respected"; 4) "valued"; and 5) "accepted?" (1 = *Not at all*, 2 = *Somewhat*, 3 = *A little*, 4 = *Quite*, 5 = *Very*). I computed a composite by averaging the items (α = .92).

Competence concern. I asked participants how much they worry about appearing incompetent to their manager, using six items adapted from Emerson and Murphy (2015): [Generally, I worry that my manager will think I am *not*...] 1) "competent"; 2) "qualified"; 3) "smart"; 4) "skilled"; 5) "intelligent"; and 6) "knowledgeable" (1 = *Strongly Disagree*, 7 = *Strongly Agree*). I computed a composite (α = .97), with higher scores reflecting stronger competence concerns.

Comfort in seeking advice. I asked participants how comfortable they were in seeking task-related advice from their manager, using two items adapted from previous work (Carver, 1997; Hofmann et al., 2009): [How comfortable are you in…] 1) "soliciting task-related advice from your manager?"; 2) "asking advice from your manager on how to solve a work-related

problem that you're not sure about?" (-3 = *extremely uncomfortable*, 3 = *extremely comfortable*). These two items were strongly correlated (r = .78, p < .001); thus, I averaged them.

Perceived managerial ability. I asked participants to rate their manager's abilities using six items (α = .95) from previous work (Hofmann et al., 2009): ["My manager…"] 1) "is very capable of performing his job"; 2) "is known to be successful at the things he tries to do"; 3) "has much knowledge about the work that needs done"; 4) "is competent and skilled"; 5) "has specialized capabilities that can increase our performance"; 6) "is Ill qualified". I controlled for this variable in my robustness test to rule out the possibility that people are more inclined to seek advice when they have an incremental (vs. an entity) meta-lay theory because an incremental meta-lay theory creates the perception that the manager is competent (Hofmann et al., 2009).

Personality assessment. I administered a short personality assessment questionnaire containing two measures that tend to co-vary with class background and advice-seeking. The first measure was a self-efficacy scale from Schwarzer and Jerusalem (1995; 10 items; sample item: "I can always manage to solve difficult problems at work if I try hard enough; α = .94). The second measure was the participant's personal beliefs about the malleability of intelligence (7 items; sample item: "No matter who you are, you can significantly change your intelligence level"; α = .97). Participants used a 7-point scale to answer these measures (1= *Strongly disagree*, 7 = *Strongly agree*). I also controlled for these variables in my robustness test.[1]

Employment questionnaire. Next, participants reported how long they had been with

[1] In an early draft of this manuscript, a friendly reviewer wondered whether an individual's likelihood to seek advice depends both on their meta-lay theories *and* their own personal views about the nature of intelligence. Although this is outside of the scope of the present investigation, I investigated this possibility with the data that I had in Study 1. The results of those analyses are reported more fully in the SOM, but I briefly summarize in this footnote what I found: The extent to which people hold an incremental meta-lay theory positively predicted their comfort with advice-seeking (consistent with H1), and this effect seems to be stronger among those who personally subscribe to an incremental view of an intelligence than among those who personally subscribe to an entity view of intelligence.

their company (1 = *Less than 1 year*, 10 = *More than 10 years*); their rank at work (1= *Non-management position*, 2= *Line-management position*, 3= *Middle management position*, 4 = *Senior management position*); their organization's type (1 = *Government or public institution*, 2 = *Private business or Industry*, 3 = *Private non-profit organization*); their organization's size (1 = *10 or fewer employees*, 2 = *11 to 250 employees*, 3 = *251 to 500 employees*, 4 = *501 to 1000 employees*, 5 = *more than 1000 employees*); and the organizational environment in which they work (0 = *Blue-collar environment*, 1= *White-collar environment*). In our robustness test, organization type was dummy-coded, such that government/public institution was the baseline.

Demographic Questionnaire. Finally, participants answered a demographic questionnaire with questions about their age, gender (0 = *male*, 1 = *female*), ethnic status (0 = *Non-white*, 1 = *White*), income (Reverse-coded: 1 = *Less than $20,000 per year,* 16 = *Greater than $300,000 per year*), subjective social class (Adler, Epel, Castellazzo, & Ickovics, 2000), their educational attainment (Reverse-coded: 1 = *Some High School,* 2 = *High School Diploma*, 3 = *Some College Experience*, 4 = *College Degree*, 5 = *Some Graduate School Training*, 6 = *Graduate Degree/Professional Diploma*), and their mother's and father's highest educational attainment.[2]

Results

Means, standard deviations, and correlations among the measured variables are summarized in Table 3.

To test my hypotheses, I first ran basic models, regressing each of our main dependent variables (i.e., comfort with advice-seeking and sense of belonging) on (mean-centered)

[2] I measured subjective social class and income to explore the possibility that the psychology that I am proposing is not limited to first-generation individuals, but applies to low-class individuals more broadly. As reported more fully in the SOM, these variables did not have the same effect as our class background variable. When I reran all of our analyses, the interaction terms failed to achieve significance in all but two cases.

participants' meta-lay theories, class background (contrast-coded: -1 = *first-generation*, 1 = *continuing-generation*), and their interaction (Aiken & Ist, 1991). Then, I conducted robustness tests by adding covariates to these models. These results are summarized in Table 4.

Comfort in seeking advice. H1 states that people would feel more comfortable approaching their manager for advice when they believe that their manager is an incremental theorist (vs. an entity theorist). In support of H1, I found that employees who saw their manager as an incremental theorist reported feeling more comfortable seeking advice compared to employees who saw their manager as an entity theorist (without covariates: $b = .37$, $t[221] = 5.31$, $p < .001$; with covariates: $b = .19$, $t[209] = 2.92$, $p < .01$). H3 states that class background would moderate this effect. As Table 4 shows, the Meta-Lay theories × Class Background interaction on comfort with advice-seeking did not reach significance in the basic model (ps > .29), but it did in the robustness model, $b = –.11$, $t[209] = -2.10$, $p = .037$, in partial support of H3. Figure 1 visualizes this interaction.

Although employees were generally more inclined to seek advice when they believed that their manager was an incremental (vs. an entity) theorist, this tendency was stronger among first-generation employees (without covariates: $b = 0.44$, $t[221] = 4.16$, $p < .001$; with covariates: $b = 0.30$, $t[209] = 3.50$, $p < .001$) than among continuing-generation employees (without covariates: $b = 0.29$, $t[221] = 3.29$, $p < .01$; with covariates: $b = 0.07$, $t[209] = 0.90$, $p = .36$).

Mediating Role of Sense of Belonging. H2 and H4 concern the mediating role of sense of belonging. Consistent with H2, participants who thought that that their manager was an incremental theorist expressed greater sense of belonging than participants who thought that their manager was an entity theorist (without covariates: $b = .27$, $t[209] = 5.90$, $p < .001$; with covariates: $b = .15$, $t[221] = 3.72$, $p < .001$). Furthermore, sense of belonging at work positively

predicted how comfortable employees felt about advice-seeking (without covariates: $b = 1.12$, $t[222] = 16.32$, $p < .001$; with covariates: $b = .85$, $t[210] = 9.21$, $p < .001$).

To formally test H2, I conducted a mediation model in which meta-lay theory was the independent variable, sense of belonging was the mediator, and comfort with advice seeking was the dependent variable. I conducted this analysis twice (once without and once with covariates) using a bias-corrected bootstrap (1,000 iterations). In both cases, the indirect effect was significant (without covariates: 95% CI [.22, .61]; with covariates: 95% CI [.001, .30]), in support of H2.

H4 states that the indirect effect via sense of belonging should be stronger among first-generation individuals than among continuing-generation individuals. Before testing H4, I examined whether class background moderated the relationship between meta-lay theories and sense of belonging. As can be seen in Table 4, the Meta-Lay Theory × Class Background interaction on sense of belonging was marginally significant in the basic model ($p = .084$), and significant in the robustness model, $b = – .07$, $t(209) = -2.28$, $p = .024$. Figure 1 (Right Panel) visualizes this interaction. As can be seen, the positive relationship between meta-lay theory and sense of belonging was stronger among first-generation employees (without covariates: $b = .35$, $t[221] = 4.99$, $p < .001$; with covariates: $b = .23$, $t[209] = 4.20$, $p < .001$), than among continuing-generation employees (without covariates: $b = .19$, $t[221] = 3.23$, $p < .01$; with covariates: $b = .07$, $t[209] = 1.42$, $p = .16$).

To formally test H4, I examined whether sense of belonging mediated the Meta-Lay Theory × Class Background interaction on comfort with advice seeking, again using a bias-corrected bootstrap. The key results for these analyses are summarized in Table 5. The index of mediated moderation was not significant in the basic model, 95% CI [-.41, .03], but it was

significant in the extended model, 95% CI [-.27, -.01], partially supporting H4. As expected, the indirect effect was larger among first-generation employees (95% CI [.08, .32]) relative to continuing-generation employees (95% CI [–.04, .16]).

Alternative explanation. Next, I examined competence concerns as an alternative mechanism. As Table 4 shows, when people think that their manager is an entity theorist, they worry more about being seen as incompetent (without covariates: b = -.24, t[221] = -2.39, p = .017; with covariates: b = -.27, t[209] = -2.50, p = .013). This main effect, however, was *not* qualified by class background, ps > .47. In other words, when people think that their manager is an entity theorist, they worry about being seen as incompetent, regardless of whether they are a first-generation employee (b = -.35, t[221] = -2.97, p = .003), or a continuing-generation employee (b = -.24, t[221] = -2.39, p = .018). As Table 5 also shows, I did not find evidence that competence concerns mediated the Meta-Lay Theory × Class Background interaction on comfort with advice-seeking.

I next conducted a multiple mediator analysis to pit my proposed mechanism (sense of belonging) against the alternative mechanism (competence concerns). With respect to H2, sense of belonging mediated the relationship between meta-lay theory and advice-seeking (without covariates: 95% CI [.16, .41]; with covariates: 95% CI [.02, .19]), whereas competence concerns did not (without covariates: 95% CI [-.002, .06]; with covariates: 95% CI [-.00, .08]). With respect to H4, sense of belonging mediated the Meta-Lay Theories × Class Background interaction on comfort with advice-seeking in the robust model (with covariates: 95% CI [-.27, -.01]), but not in the basic model (without covariates: 95% CI [-.41, .03]); competence concerns, on the other hand, did not emerge as a significant mediator in both cases (without covariates: 95% CI [-.14, .08]; with covariates: 95% CI [-.08, .04]).

Discussion

Study 1 revealed at least three important findings. First, I found evidence in the real world that employees do feel more comfortable seeking task-related advice to the extent that they perceive their manager as an incremental (vs. an entity) theorist, in part because holding an incremental meta-lay theory engenders a greater sense of belonging. These findings emerged even after accounting for a wide range of demographic, personality, and work-related variables that could plausibly affect people's inclination to seek advice, providing strong support for H1 and H2.

Second, I found some evidence for H3 and H4: That class background would moderate the relationship between meta-lay theories, sense of belonging, and comfort with advice-seeking. Specifically, I found that the extent to which employees believe that their manager is an incremental theorist positively predicted how much they felt they belong at work (and, in turn, how comfortable they were with seeking advice), especially among first-generation employees than for continuing-generation employees. However, given that the evidence for these hypotheses emerged only in the robustness models, I treat them cautiously and interpret them as preliminary evidence at best.

Third, Study 1 found evidence in favor of my proposed mechanism as opposed to the alternative mechanism. Specifically, I found that the relationship between meta-lay theories and comfort with advice-seeking was linked to each other through sense of belonging, and not by competence concerns.

Taken together, Study 1 provides evidence consistent with my theoretical arguments, using a design high in external validity with actual employees in the real world. However, the design of Study 1 does not permit us to claim causality, and the evidence supporting our

moderation hypotheses is tentative at best. To address these limitations, I used a more controlled experimental design in Study 2.

Study 2: Experimental Test with Working Adults

Study 2 provided a controlled test of our basic idea: That participants would feel more comfortable seeking advice when they believe that their manager is an incremental theorist than an entity theorist (H1), and that this effect would be stronger among first-generation individuals than among continuing-generation individuals (H3). To test these hypotheses, I again recruited working adults and asked them to imagine that they worked at a particular company. Some were led to believe that their manager was an entity theorist; others were led to believe that their manager was an incremental theorist. I then measured how this meta-lay theory manipulation affected their inclination to seek advice.

Method

Design. Study 2 used a 2 (Meta-Lay Theory Condition: Entity vs. Incremental) × 2 (Class Background: First-Generation vs. Continuing-Generation) between-subjects experimental design.

Participants. I aimed to recruit employed adults with a college degree at a minimum. To reach this target population, I first recruited 410 participants from Amazon Mechanical Turk and had them complete a pre-screen questionnaire. In this pre-screen, I asked participants questions about their highest educational attainment and employment status, which were embedded among a larger set of demographic questions. Individuals who indicated in this pre-screen that they were college-educated and employed full-time (N = 155) were told that they were eligible to participate in a study on "workplace dynamics". They were immediately redirected to the actual study and received two dollars for completing the survey. Participants who did not qualify for the actual survey were paid 10 cents for completing the pre-screen.

Prior to data analysis, I excluded eleven participants who failed our attention check (described below) and one participant whose class background I could not classify because he did not answer my question about his parents' educational attainment. Results were virtually identical when I included these participants in our analysis (see SOM). My final sample consisted of 143 individuals ($n_{\text{first-generation}} = 48$; $n_{\text{continuing-generation}} = 95$; 55.94% female, $M_{age} = 37.36$, $SD_{\text{age}} = 10.78$; see Table 2).

Procedure. At the beginning of the study, I asked participants to imagine that they had just been hired to work as an administrative assistant for a company called Micron Technology. I described the company as a fast-rising startup located in the center of Silicon Valley. They also read that the majority of employees in this particular firm consisted of individuals who graduated from an elite university on the West Coast.

I then randomly assigned participants to one of two conditions to manipulate their meta-lay theories. In the *entity meta-lay theory condition*, participants read the following:

"On your first day, you met your manager, who outlined his expectations for new employees. "I get pretty busy around here," he said, "so the one thing that I want from everybody on my team is to be smart. You seem like you're a capable person, which is why HR presumably hired you for this job. I've worked with many people who were in your role, and the one thing that I've learned is that you've either got what it takes, or you don't."

In the *incremental meta-lay theory condition*, participants read an identical paragraph, except the last sentence read, "I've worked with many people who were in your role, and the one thing that I've learned is that everybody's got what it takes, as long as they work hard." After reading this vignette (reproduced in the appendix), participants answered several dependent measures (described below).

Measures.

Manipulation Check. First, I had participants answer a manipulation check, which consisted of the 8-item Meta-Lay Theory scale from Study 2 (α = .96), slightly rewritten to fit the context of this study (e.g., "I think my manager at Micron Technology seems to believe that people have a certain amount of intelligence, and they can't really do much to change it"; 1 = *Strongly Disagree,* 7 = *Strongly Agree*).

***Comfort with advice-seeking*.** Next, I asked participants whether they would feel comfortable approaching their manager for task-related advice. I did so by using three different measures adapted from existing research (Carver, 1997; Hofmann et al., 2009). The first measure consisted of four items: [How comfortable would you be in…] 1) "approaching your manager for work-related advice?"; 2) "soliciting task-related advice from your manager?"; 3) "asking advice from your manager about how to be more effective at your job?"; and 4) "asking advice from your manager about how to be better at your job?" (-3 = *extremely uncomfortable*, 3 = *extremely comfortable*; α = .94).

The second measure consisted of four items that assessed how often participants planned to seek advice from their manager: [How often would you…] 1) "seek task-related advice from your manager?"; 2) "interact with your manager to ask for advice on work-related tasks?"; 3) "ask your manager for advice on how to be better at your job?"; 4) "ask your manager for advice on how to be more effective at your job?" (1 = *never*, 4 = *regularly*; α = .86).

The third measure asked participants to imagine two situations at work. The first situation read: 1) "Imagine that you are working on an important project at work. While working on this project, you encounter a problem that you are not sure how to solve. How comfortable would you be in approaching your manager to ask for advice on how to solve this problem?" (-3 =

extremely uncomfortable, 3 = *extremely comfortable*). The second situation read: "Imagine that you discovered that you have inadvertently made a substantial error in making an important expense report. How comfortable would you be in approaching your manager to ask for advice on how to solve this problem?" (-3 = *extremely uncomfortable*, 3 = *extremely comfortable*). Responses to these two situations were highly correlated (α = .82).

These three measures of advice-seeking comfort were highly correlated (r_{range} = .62 to .70, *p*s < .001) and yielded identical results when analyzed separately, so, for the sake of parsimony, I combined them after standardizing each composite (α = .94).

***Attention check*.** Next, participants answered an attention check: "Based on the scenario that you read, Micron Technology seems like..." (1 = *A blue-collar environment*, 2 = *A white-collar environment*, 3 = *Don't know*).

Demographic Questionnaire. Finally, participants reported their gender, ethnicity, and their parents' highest educational attainment, using the same measures from Study 1.

Results

Manipulation check. I began by examining whether our manipulation was successful. As expected, participants in the incremental meta-lay theory condition (M = 4.32, SD = 1.45) more strongly believed that their manager was an incremental theorist compared to participants in the entity meta-lay theory condition (M = 2.49, SD = 1.10, t[141] = -8.50, p <.001). Employees' class background (dummy-coded: 0 = *first-generation*, 1= *continuing-generation*) did not moderate this effect, b = .73, t(139) = 1.53, p = .10. Therefore, I conclude that my meta-lay theory manipulation was successful.

Comfort with Advice-seeking. To test my hypotheses, I first ran a basic test, regressing comfort with advice seeking on meta-lay theory condition (contrast-coded: -1 = *entity*, 1 =

incremental), class background (contrast-coded: -1 = *first-generation*, 1 = *continuing-generation*), and their interaction. Then, I ran a robustness test by controlling for ethnic status (0 = *non-white*, 1 = *white*) and gender (0 = *male*, 1 = *female*) in the model, following prior research (Stephens et al., 2007). The results of these analyses are summarized in Table 6.

Supporting H1, participants who were given the impression that their manager was an incremental theorist (M = .37, SD = .64) felt significantly more comfortable approaching their manager for advice than participants who were given the impression that their manager was an entity theorist (M = -.36, SD = .75; without covariates: b = .42, t[139] = 6.71, p <.001; with covariates: b = 0.42, t[137] = 6.70, p <.001). H3 states that class background would moderate this effect. Supporting H3, the Meta-Lay Theory Condition × Class Background interaction on advice-seeking was significant (without covariates: b = -.14, t[139] = -2.25, p = .026; with covariates: b = -.14, t[137] = -2.22, p = .028). Figure 2 visualizes this interaction.

As can be seen in Figure 2, providing participants with an incremental (vs. an entity) meta-lay theory boosted their inclination to seek advice, and this effect was stronger among first-generation employees (without covariates: b = 1.12, t[139] = 5.47, p < .001; with covariates: b = 1.13, t[137] = 5.43, p < .001), than among continuing-generation employees (without covariates: b = 0.56, t[139]= 3.87, p < .001; with covariates: b = 0.56, t[137]= 3.82, p < .001).

Discussion

Using an experiment, Study 2 found that employees feel more comfortable asking for advice when they were led to believe that their manager was an incremental (vs. an entity) theorist, and that this effect occurred more strongly among first-generation participants than among continuing-generation participants. These findings provide support for H1 and H3, and replicate my findings in Study 1. However, by using a controlled experiment, Study 2 provides

causal evidence that meta-lay theories do shape how comfortable employees feel about advice-seeking, and that its effect on comfort with advice-seeking is stronger among first-generation employees than among continuing-generation employees.

Study 3: Sense of Belonging as the Underlying Mechanism

One limitation of Study 2 is that it did not assess the underlying psychological mechanism, namely sense of belonging. In our final study, I addressed this limitation and tested all four hypotheses from our theoretical model. To further rule out alternative explanations, I measured two constructs that have been strongly linked to people's propensity to seek advice and that tend to be confounded with one's class background: independence concerns (i.e., the extent to which people don't want to be seen as dependent on their colleagues at work) and relational concerns (i.e., the extent to which people feel concerned about potentially negative relational consequences of advice-seeking [such as losing face]; Taylor, Sherman, Kim, Jarcho, Takagi, & Dunagan, 2004). I predicted that my hypothesized relationships would emerge even after controlling for these constructs.

Method

Design. Study 3 used a 2 (Meta-Lay Theory Condition: Entity vs. Incremental) × 2 (Class Background: First-Generation vs. Continuing-Generation) between-subjects experimental design.

Participants. Because my experiment required participants to imagine that they were summer interns, I recruited two hundred undergraduate/graduate students through Qualtrics. Prior to data analysis, I excluded nine respondents who could not verify their student status (i.e., they were unable to provide us the names of their universities). Including these participants yielded the same results (see SOM). Thus, my final sample consisted of 191 participants (93

first-generation students, 98 continuing-generation students; 70% female, M_{age} = 26.67, SD_{age} = 7.80).

Procedure. I asked participants to imagine that they worked as a summer intern for a Ill-regarded consulting firm in the United States and that they could potentially receive a full-time employment offer from this company after three months. Then, I asked participants to imagine that they were meeting their manager for the first time. I used the same manipulations that I used in Study 2: Half of the participants read that during their onboarding session, their manager gave a welcoming speech to all new employees, in which at one point he remarked, "I've worked with many people in this company, and the one thing that I've learned is that *you've either got what it takes, or you don't*" (entity meta-lay theory condition). The remaining participants read the same welcome speech, except the manager said, "I've worked with many people in this company, and the one thing that I've learned is that *everybody's got what it takes as long as they work hard*" (incremental meta-lay theory condition). After reading the vignette (available in the SOM), participants answered several measures (described below).

Measures.

Manipulation check. First, participants answered the same manipulation check from Study 2 (α = .85).

Comfort with seeking advice. Second, participants reported how comfortable they would feel about seeking task-related advice from their manager, using the same items from Study 2 (α = .94).[3]

[3] To reduce the length of our survey, I did not use the four items from Study 2 that assessed how often participants planned to seek advice from their manager.

Sense of belonging. Third, participants reported their sense of belonging to this company, using the same items from Study 2 (e.g., "To what extent would you feel that you belong at this company?"; α = .79).

Competence concerns. Fourth, participants rated the likelihood that their manager would view them as "smart", "qualified", "intelligent", "competent", and "capable" (1 = *Very unlikely*, 7 = *Very likely*). I reverse-coded and averaged them so that higher scores reflect a stronger expectation of being perceived as incompetent (α = .93).

Independence concerns. Fifth, participants indicated whether being "independent" and "self-reliant" were important to them by using two items adapted from previous research (Taylor et al., 2004; 1 = *Strongly disagree,* 7 = *Strongly agree*). These two items were highly correlated (*r* = .78); thus, I averaged them to form a composite for independence concerns.

Relationship concerns. Sixth, participants answered two items from existing research (Taylor et al., 2004) that assessed how greatly participants were concerned about being a burden to others: 1) "In general, I don't want other people to feel stressed out about my problems"; 2) "In general, I don't want to burden other people with my problems" (1 = *Strongly disagree,* 7 = *Strongly agree*). I averaged these two items (*r* = .80).

Demographic questionnaire. Finally, participants completed a demographic questionnaire that contained questions about their gender and parental educational attainment.

Results

Manipulation check. As expected, participants in the incremental meta-lay theory condition (*M* = 4.50, *SD* = 1.17) more strongly believed that their manager was an incremental theorist compared to participants in the entity meta-lay theory condition (*M* = 3.53, *SD* = 1.18),

t[189] = -5.68, p < .001). Class background did not moderate this effect, b = .60, t(187) = 1.78, p =.10. Therefore, I conclude that our manipulation was successful.

Data analytic strategy. To analyze my data, I first ran basic tests, regressing our main dependent variables (comfort with advice-seeking and sense of belonging) on meta-lay theory condition (contrast-coded: -1 = *entity-manager*, 1 = *incremental-manager*), class background (contrast-coded: -1 = *first-generation*, 1= *continuing-generation*), and their interaction. Then, I conducted robustness tests by controlling for gender (0 = *male*, 1 = *female*), ethnic status (0 = *Non-white*, 1 = *White*), independence concerns, and relationship concerns in these models. The key results are summarized in Table 7.

Comfort in seeking advice. Supporting H1, I found that employees who were led to believe that their manager was an incremental theorist (M = .63, SD =1.57) reported that they would feel more comfortable approaching their manager for advice compared to employees who were led to believe that their manager was an entity theorist (M = -.07, SD = 1.56; without covariates: b = .36, t[187] = 3.23, p = .002; with covariates: b = .37, t[183] = 3.43, p =.001). H3 states that class background would moderate this effect. As Table 7 shows, the Meta-Lay Theory Condition × Class Background interaction on advice-seeking comfort was significant (without covariates: b = -.29, t[187] = -2.64, p =.01; with covariates: b = -.25, t[183] = -2.37, p = .02). Figure 3 (Left Panel) depicts this interaction.

As can be seen, first-generation participants felt significantly more inclined to seek advice when they were led to believe that their manager is an incremental theorist (M = .82, SD = 1.35) than when they were led to believe that their manager is an entity theorist (M = -.48, SD = 1.46); without covariates: b = 1.30, t[187] = 4.09, p < .001; with covariates: b = 1.24, t[183] = 4.07, p < .001). In contrast, continuing-generation participants felt equally inclined to ask advice

regardless of their meta-theory (without covariates: $b = 0.13$, $t[187] = 0.42$, $p = .67$; with covariates: $b = .23$, $t[183] = 0.76$, $p = .45$).

Mediating Role of Sense of Belonging. Consistent with H2, participants who were led to believe that their manager was an incremental theorist ($M = 3.42$, $SD = 0.82$) expressed greater sense of belonging than participants who were led to believe that their manager was an entity theorist ($M = 3.11$, $SD = .86$; without covariates: $b = .16$, $t[187] = 2.66$, $p = .008$; with covariates: $b = .16$, $t[183] = 2.63$, $p = .009$). Furthermore, sense of belonging positively predicted how comfortable participants felt about advice seeking (without covariates: $b = 1.21$, $t[188] = 11.81$, $p < .001$; with covariates: $b = 1.13$, $t[184] = 11.00$, $p < .001$).

To formally test H2, I conducted a mediation model in which meta-lay theory condition was the independent variable, sense of belonging was the mediator, and advice seeking comfort was the dependent variable. The indirect effect was significant (without covariates: 95% CI [.35, 1.37]; with covariates: 95% CI [.36, 1.28]), supporting H2.

H4 states that the indirect effect I documented above should be stronger among first-generation individuals than among continuing-generation individuals. Consistent with H4, there was a significant Meta-Lay Theory Condition × Class Background interaction on sense of belonging (without covariates: $b = -.19$, $t[187] = -3.11$, $p = .002$; with covariates: $b = -.17$, $t[183] = -2.88$, $p = .004$; see Table 7 and Figure 3). As expected, first-generation participants reported a higher sense of belonging when they had an incremental meta-lay theory than an entity meta-lay theory (without covariates: $b = 0.69$, $t[187] = 4.03$, $p < .001$; with covariates: $b = 0.65$, $t[183] = 3.87$, $p < .001$). In contrast, continuing-generation participants reported similar levels of sense of belonging regardless of their meta-lay theory (without covariates: $b = -.05$, $t[187] = -.32$, $p = .75$; with covariates: $b = -.03$, $t[183] = -.17$, $p = .87$).

To formally test H4, I examined whether sense of belonging mediated the Meta-lay Theory Condition × Class Background interaction on comfort with advice-seeking. The key results for these analyses are summarized in Table 8. The index of mediated moderation was significant and robust (without covariates: 95% CI [-1.51, -.03], with covariates: 95% CI [-1.37, -.23]), and the indirect effect was larger among first-generation individuals (without covariates: 95% CI [.43, 1.24], with covariates: 95% CI [.32, 1.15]) than among continuing-generation individuals (without covariates: (95% CI [–.46, .30], with covariates: 95% CI [–.38, .82]). These results support H4.

Alternative mechanism. Next, I examined competence concerns as an alternative mechanism (see Models 5 and 6 in Table 7). As can be seen, participants who were led to believe that their manager was an entity theorist more strongly felt concerned about appearing competent (M = 2.96, SD = 1.39) compared to participants who were led to believe that their manager was an incremental theorist (M = 2.53, SD = 1.30; without covariates: b = -.22, t[187] = -2.33, p = .021; with covariates: b = -.16, t[183] = -1.95, p = .053). However, unlike in Study 1, I found that class background moderated this effect (without covariates: b = .28, t[187] = 2.97, p = .003; with covariates: b = .25, t[183] = 2.96, p = .004; see Table 7), indicating that this tendency was stronger among first-generation participants (without covariates: b = -1.01, t[187] = -3.70, p < 0.001; with covariates: b = -0.82, t[183] = -3.44, p < .001), than among continuing-generation participants (without covariates: b = 0.12, t[187] = 0.46, p = .65; with covariates: b = 0.17, t[183] = .71, p = .48). Furthermore, as Table 8 shows, competence concerns also mediated the Condition × Class Background interaction on comfort with advice-seeking.

I next reran all of my mediation analyses to pit my proposed mechanism (sense of belonging) against the alternative mechanism (competence concerns). With respect to H2, sense

of belonging mediated the relationship between condition and comfort with advice-seeking (without covariates: 95% CI [-1.54, -.35], with covariates: 95% CI [-1.35, -.27]), whereas competence concerns did not (without covariates: 95% CI [-.36, .19], with covariates: 95% CI [-.34, .19]). With respect to H4, sense of belonging mediated the Meta-Lay Theory Condition × Class Background interaction on comfort with advice-seeking (without covariates: 95% CI [.08, .65], with covariates: 95% CI [.08, .62]), whereas competence concerns did not (without covariates: 95% CI [–.07, .14], with covariates: 95% CI [–.07, .12]).

Discussion

Using an experiment, Study 3 found support for all four hypotheses from our theoretical model. Specifically, I found that participants were more inclined to seek advice when they were led to believe that their manager was an incremental theorist rather than an entity theorist (H1), and that sense of belonging mediated this effect (H2). I further found that these meta-lay theories had a larger impact on our first-generation participants than on our continuing-generation participants. Specifically, I found that first-generation participants felt a greater sense of belonging (H4)—and, in turn, a greater inclination to seek advice (H3)—when they were given an incremental meta-lay theory rather than an entity meta-lay theory. In contrast, continuing-generation participants reported similar levels of sense of belonging—and similar inclinations to seek advice—regardless of their meta-lay theories. These effects emerged even after controlling for alternative accounts (i.e., competence concerns), variables that strongly shape people's inclination to seek advice (i.e., independence concerns and relational concerns), and variables that tend to co-occur with social class background (i.e., gender and ethnic status).

Internal Meta-Analysis

To further investigate the relationships among my focal constructs, I conducted an

internal meta-analysis (Goh, Hall, & Rosenthal, 2016). I used correlation coefficients as our effect size and conducted separate analyses for partial correlations obtained from regressions without and with covariates. Because I tested my hypotheses using different populations, I used a random effects model and conducted all analyses using the *metafor* package in R (Viechtbauer, 2010). Following best practices (Coburn & Vevea, 2017; Viechtbauer, 2005), I used Restricted Maximum Likelihood (REML) as our variance estimator. These results are summarized in Table 9.

Across studies, meta-lay theories exerted a strong main effect on comfort with advice seeking (r_{range} = .29 to .35, zs = 2.69 to 4.54, both ps <.01), indicating that participants, in general, feel more inclined to seek advice when they see their manager as an incremental theorist than an entity theorist. These results support H1. I also found a robust Meta-Lay Theory × Class interaction on comfort with advice-seeking across studies (r = .14, zs = 3.24 to 3.29, both ps <.01). As Table 9 shows, the effect of meta-lay theories on comfort with advice-seeking was significantly larger for first-generation participants (r_{range} = .28 to .31, zs = 4.11 to 7.62, both ps <.001) than for continuing-generation participants (r_{range} = .12 to .17, zs = 1.60 to 2.36, p_{basic} = .02, p_{robust} = .11). These results provide strong support for H3.

I am not aware of a statistical technique to meta-analyze indirect effects across studies. Nevertheless, I assessed the robustness of the a-path and the b-path of my mediation models.

First, I found that meta-lay theories exerted a strong main effect on sense of belonging (r_{range} = .17 to .28, zs = 3.08 to 3.64, both ps <.01), indicating that participants, in general, feel a greater sense of belonging when people have an incremental meta-lay theory than when they have an entity meta-lay theory. This finding is consistent with H2. I also found a robust Meta-Lay Theory × Class interaction on sense of belonging across studies (r_{range} = .15 to .16, zs = 2.94

to 3.07, both *p*s <.01). As Table 9 shows, the simple effect of meta-lay theories on sense of belonging was significantly larger for first-generation participants (r_{range} = .23 to .30, *z*s = 4.84 to 6.67, both *p*s <.001) than for continuing-generation participants (r_{range} = .04 to .14, *z*s = .80 to 2.15, p_{basic} = .03; p_{robust} = .42). These findings are consistent with H4. Finally, sense of belonging strongly predicted comfort with advice-seeking, after accounting for the main and interactive effects of meta-lay theory and class background (r_{range} = .46 to .66, *z*s = 4.73 to 15.37, both *p*s<.001). Overall, these findings provide strong support for my theoretical model.

General Discussion

In three studies, I investigated the relationship between meta-lay theories, social class background, and comfort with advice-seeking. I found that the extent to which employees see their manager as an incremental (vs. an entity) theorist impacts their sense of belonging at work, which in turn affects their inclination to seek task-related advice, especially if they are a first-generation employee (vs. a continuing-generation employee). Study 1 found evidence for our hypotheses using a survey with employed adults; Studies 2 and 3 found causal evidence using controlled experiments. Together, these studies contribute to several areas of research, which I discuss below.

Theoretical and Practical Contributions

Contributions to Literature on Lay Theories. First, my research contributes to the relatively new and understudied construct of meta-lay theories (Rattan et al., 2018). My findings are consistent, but also substantively different in important ways, from the findings documented by Rattan and her colleagues. On one hand, my findings converge with their conclusion that meta-lay theories drive meaningful psychological outcomes, independent of people's personal lay beliefs, and that meta-lay theories are an important source of motivation, especially for

individuals from under-represented backgrounds. On the other hand, my findings also document novel insights: Whereas Rattan and colleagues found that meta-lay theories shape the persistence and performance of female students in educational settings, I find that meta-lay theories shape the extent to which people feel inclined to seek advice at work, particularly for first-generation individuals. To my knowledge, I am the first to integrate this new literature on meta-lay theories with the literature on social class and advice-seeking, and the first to develop a nuanced theoretical model that elucidates when and why people from disadvantaged backgrounds may feel reluctant to seek advice at work.

More broadly, my findings also contribute to the literature on implicit theories (Dweck, & Elliott, 1983; Dweck & Leggett, 1988; Ehrlinger, Mitchum, & Dweck, 2016; Emerson & Murphy, 2015; Murphy & Dweck, 2010; Hong et al., 1999; Robins & Pals, 2002). Although this topic has been studied extensively in the education literature (Aronson, Fried, & Good, 2002; BlackIll et al., 2007; Henderson & Dweck, 1990; Paunesku, Walton, Romero, Smith, Yeager, & Dweck, 2015; Rattan et al., 2012), only a handful of studies have applied these concepts to the management and organizational domain. Furthermore, those studies have mostly investigated the implicit theories of managers and leaders and how those personal theories affect *knowledge-sharing*. For example, past research has found that when managers hold incremental (vs. entity) views of intelligence, they appraise employees more holistically (Heslin et al., 2005) and spend more time coaching them (Heslin et al., 2006). My findings complement this previous work by shifting the focus to *employees*' meta-beliefs and by demonstrating that such beliefs can affect *knowledge-seeking*, a relatively understudied process to date.

Contributions to Cultural Mismatch Theory. My research also extends work on Cultural Mismatch Theory (Stephens et al., 2007, Stephens, Fryberg, et al., 2012, Stephens,

Townsend, et al., 2012, Stephens, Hamedani, & Destin, 2014, Stephens, Markus, & Phillips, 2014, Stephens et al., 2017). Past research has found that social disparities arise when professional contexts emphasize independent models—and exclude interdependent models—of the self (Stephens, Markus, & Phillips, 2014). My findings suggest that social disparities may also arise when subtle social cues lead disadvantaged employees to conclude that their manager is an entity theorist. To the extent that first-generation individuals come to believe that their manager is an entity theorist, they may feel dissuaded from seeking advice and thereby miss not only important knowledge that could help them be more effective in their jobs, but also opportunities to establish close relationships with their superiors (Brooks et al., 2015; Emerson & Murphy, 2015).

Proponents of cultural mismatch theory have offered several insights to reduce social disparities at work. These include 1) helping disadvantaged individuals develop an independent model of competence (for example, by giving them opportunities to practice these behaviors; Stephens et al., 2017); and/or 2) creating institutional-level interventions that seek to create a more inclusive culture (for example, by changing incentive structures and evaluation standards so that interdependent models are rewarded; see Stephens et al., 2017). My findings suggest a complementary approach, one that seeks to highlight the importance of signaling *nurturing* messages and a commitment to an incremental philosophy (Dweck, 2006). For example, managers could signal that they are incremental theorists by supporting training and development initiatives, by giving wise and constructive feedback (Cohen, Steele, & Ross, 1999), and by being more mindful about the language that they use (e.g., by refraining from using essentialist language).

Contributions to the Advice-seeking Literature. My research contributes to the

literature on advice-seeking. As I noted in the introduction, most prior research in the advice literature has largely focused on either advice-giving (Feng & Magen, 2016; Jonas & Frey, 2003, Jonas et al., 2005; Kray, 2000; Kray & Gonzalez, 1999; Rader et al., 2017; Schaerer et al., 2018) or advice-taking (Blunden, John, Brooks, & Gino, 2017: Gino & Moore, 2007; Gino et al., 2012; Tost et al., 2012), and has largely neglected the decision to seek advice (Brooks et al., 2015). Furthermore, to my knowledge, prior studies have not directly investigated what makes employees feel comfortable approaching their *manager* for advice. Here, I show that meta-lay theory is an important factor that shapes how comfortable employees feel about approaching their manager for task-related advice.

My findings also provide a more nuanced view underlying the decision to seek advice. Gino and colleagues (2012) noted that anxiety increases people's inclination to seek advice. Our findings raise the possibility that this may not necessarily reflect the psychology of first-generation individuals. Here, I find that for first-generation individuals, feeling secure—a sense of belonging—is important.

Limitations and Directions for Future Research

My investigation has several limitations which I view as opportunities for future research. First, I relied primarily on self-report measures of people's inclination to seek advice. Future research might instead use behavioral measures, either in the lab or in the real world, or conduct field studies using informant reports. Second, I did not investigate the accuracy of people's meta-lay theories. It is possible that people's meta-lay theories do not match what their managers actually believe; it would be interesting to explore what happens if employees' meta-lay theories diverge from what their managers actually believe. Third, future work could also more systematically investigate how people's meta-lay theories interact with their own self-theories.

As I briefly highlighted in Footnote 1, I found in our own data in Study 1 that meta-lay theories seem particularly important for those who are incremental theorists themselves (see SOM).

In my work, I conceptualized meta-lay theories as something that is malleable and context-dependent, consistent with prior research (Rattan et al., 2018). However, I did not investigate the extent to which these perceptions are stable in the real-world. For example, once formed, do employees hold stable beliefs about their managers' implicit views, or do they revise and update these beliefs over time? If these perceptions are largely stable, what types of events might cause employees to change their views about their manager, once formed? Future research could use diary studies or experience sampling approaches to answer this important question.

Finally, I did not examine what happens when first-generation employees do ask for advice. For example, when first-generation individuals *do* ask for advice, are they also seen by their manager as competent (Brooks et al., 2015), or does their advice-seeking signal to a manager that those employees lack competence? I leave it up to future research to answer these questions.

Conclusion

The current research contributes to our understanding of what propels people to seek advice. I find that it is important for first-generation employees to believe that their manager is an incremental theorist, because such beliefs affirm their sense of belonging, which in turn, allows them to feel comfortable with advice-seeking. Without this belief, first-generation employees may hold back their questions and concerns, and this could have substantial implications for their performance and for their career advancement. This research provides a new perspective on why seeing growth mindsets at work matter, particularly for those who come from disadvantaged backgrounds, and how organizations may exacerbate existing inequalities.

Table 1. Example Passages of Meta-Lay Theories from Our Pilot Study

Participants Who Think Their Manager is an Entity Theorist (An entity meta-lay theory)	Participants Who Think Their Manager is an Incremental Theorist (An incremental meta-lay theory)
"When dealing with and assessing his employees, he seems to form an initial impression of their intelligence and capabilities. His assessment and opinion do not seem to change over time. For example, I have seen him form a low opinion of one of the team and then never try to help that person grow."	"My manager is open to giving everyone an opportunity to achieve new goals and reach new positions. Watching him give someone who had no prior experience the chance to become a manager is a great example. He believes everyone has potential to grow."
"She is a mathematician and sees the world in black and white. I have a new employee who is struggling with the work. She may improve with intensive training and close management, but the supervisor seems to be of the mind that you either have it or you don't, and she doesn't, so there's no point working on it."	"My manager always emphasizes learning, on-the-job training, and professional development. He very rarely indicates that there is a skill that cannot be developed over time. From our conversations, it seems like he believes intelligence can be developed: with more experience, by increasing learning, and exposure to different projects. He does not seem to indicate that some people at the same level are more intelligent than the others."
"I have occasionally had to ask my manager about certain issues I have had with my coworkers. These issues generally have to do with computer-related problems. My manager has said that my co-workers don't need the latest technologies because it might be too complicated. Though my co-workers often want new technology, my manager doesn't think it's worth it or it might be too hard to learn...since I started working for the company, very few things have changed. Things are only replaced when they absolutely have to be replaced. It is almost as if my manager doesn't think people can learn or use new methods."	"He believes that everyone has their own strengths, and with clear instructions and enough autonomy, anyone can learn more and do better. I am a small team of consultants and admins. One admin is particularly slow and difficult to work with. Instead of accepting the admin the way she is, my manager always takes more time to explain things to her and gives her a bit more challenging tasks/responsibility, because he believes she can improve herself and do better this way."
"She doesn't seem to try and teach employees anything new, she always goes to the same people when she needs something done because she trusts that they can do it. She is also a control freak who will do everything herself because she doesn't think anyone can do it but her."	"Because he entrusts employees with responsibilities. His attitude towards employees is something that encourages employees to perform better. He gives substantial reasons and explanations for mistakes done by employees while also giving them second chances to perform better in future."

Note: Past research suggests that people may hold different implicit theories for various things. For example, people may hold different philosophies about the nature of personality (Dweck, Chiu, & Hong, 1995), with some people believing that personality is a fixed and stable trait, whereas others believe that it can change over time. Here, I focus specifically on meta-lay theories of *intelligence.* I focus on this domain because previous research suggests that advice-seekers often worry about whether they will be regarded as intelligent or not (Brooks et al., 2015). As I argue in the main text, one cue that may help assuage this fear is whether they believe that their manager has entity or incremental views of intelligence. Full details about the Pilot Study are reported in the Supplemental Online Material (SOM).

Table 2. Distributions of Participants Across Studies

Category	Study 1	Study 2	Study 3[a]
Gender			
Male	54%	44%	30%
Female	46%	56%	70%
Ethnicity			
African-American	10%	5%	14%
White American	72%	81%	66%
Asian American/Pacific Islander	15%	10%	9%
Latino American	1%	3%	6%
Native American	2%	0%	5%
Income			
Less than $20,000 per year	5%	14%	12%
$20,001 – $40,000	21%	23%	18%
$40,001 – $60,000	28%	20%	13%
$60,001 – $80,000	22%	17%	15%
$80,001 – $100,000	9%	12%	13%
$100,001 – $120,000	4%	6%	7%
$120,001 – $140,000	4%	3%	4%
$140,001 – $160,000	6%	1%	3%
$160,001 – $180,000	0%	<1%	3%
$180,001 – $200,000	1%	0%	2%
$200,001 – $220,000	0%	<1%	2%
$220,001 – $240,000	0%	0%	2%
$240,001 – $260,000	0%	<1%	1%
$260,001 – $280,000	0%	0%	2%
$280,001 – $300,000	0%	<1%	1%
Greater than $300,000 per year	0%	0%	3%
Education			
College degree	58%	67%	
Some graduate training	8%	6%	
Graduate/professional degree	34%	27%	
Class Background			
First-generation	44%	34%	49%
Continuing-generation	56%	66%	51%
Subjective class			
$M_{\text{subjective class}}$	5.21	5.34	5.59
$SD_{\text{subjective class}}$	1.55	1.72	1.97
Age			
M_{age}	34.97	37.36	26.67
SD_{age}	8.55	10.78	7.80

Note. In Study 3, all participants were either undergraduate or graduate students.

Table 3. Means, Standard Deviations, and Correlations among variables in Study 1

	M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Age	34.9	8.55															
2. Ethnic Status[b]	.72	.45	.07														
3. Gender[c]	.46	.50	-.04	-.11													
4. Manager's ability	5.48	1.24	-.02	-.05	-.06												
5. Tenure	5.60	3.35	.53	.01	-.06	-.01											
6. Rank	1.54	.77	.19	-.02	-.16	.13	.17										
7. Organizational size	3.29	1.48	-.10	.07	.02	-.04	.08	-.06									
8. Organization type	1.84	.60	-.11	-.06	-.04	.20	-.17	.05	-.16								
9. Work environment	.78	.41	-.01	.16	-.10	.02	.01	-.01	.10	.04							
10. Self-efficacy	5.48	.94	.09	-.09	-.06	.25	.13	.20	.04	-.06	.03						
11. Lay Theories	4.44	1.62	-.09	-.19	.03	-.02	-.09	.00	-.01	-.06	-.13	.18					
12. Meta-lay theories[f]	4.08	1.41	-.06	-.13	.04	.31	-.11	.03	-.02	-.05	-.09	.12	.50				
13. Class background[g]	.56	.50	-.11	-.01	.03	.06	-.19	-.07	-.07	-.02	-.02	-.04	-.05	.03			
14. Belonging	3.67	1.01	.08	-.05	-.01	.70	.05	.15	-.06	.18	-.03	.37	.04	.36	.02		
15. Competence	2.95	1.65	-.16	.10	.06	-.24	-.19	-.10	-.03	-.01	.03	-.45	-.02	-.24	.03	-.46	
16. Advice-seeking	1.38	1.53	.01	-.07	-.08	.64	-.02	.14	.01	.17	-.08	.41	.08	.33	.00	.77	-.43

Note. [a]Given our sample size ($N = 225$), correlations of .13 or higher are significant at $p < .05$; .19 or higher are significant at $p < .001$; [b]0 = *non-white*, 1= *white*; [c]0 = *male*, 1 = *female*; [d]0 = *blue-collar work environment*, 1= *white- collar work environment*; [e] Higher scores indicates that the participant holds an incremental view of intelligence; [f] Higher scores indicates a stronger incremental meta-lay theory; [g] 0 = first-generation, 1= continuing-generation.

Table 4. Regression Models in Study 1

	Dependent variables					
	Advice-seeking		Sense of belonging		Competence concern	
	(1)	(2)	(3)	(4)	(5)	(6)
Class background[a]	-.01 *t* = -.12	-.04 *t* = -.50	.01 *t* = .09	-.01 *t* = -.23	.07 *t* = .63	0.003 *t* = .03
Meta-lay theory	.37 *t* = 5.31***	.19 *t* = 2.92**	0.27 *t* = 5.90***	.15 *t* = 3.72***	-.29 *t* = -3.81***	-.35 *t* = -4.14***
Age		.004 *t* = .39		.01 *t* = .88		-.02 *t* = -1.16
Race		-.01 *t* = -.08		.03 *t* = .31		.24 *t* =1.09
Gender		-.11 *t* = -.76		.07 *t* = .70		.10 *t* = .52
Manager's ability		.61 *t* = 9.03***		.46 *t* = 10.81***		-.04 *t* = -.48
Tenure		-.03 *t* = -.95		.004 *t* = .25		-.06 *t* = -1.73
Rank at work		-.02 *t* = -.17		.01 *t* = .16		.10 *t* = .78
Organizational size		.07 *t* = 1.33		-.01 *t* = -.36		-.05 *t* = -.72
Private vs. Government		.40 *t* = 2.21*		.11 *t* = .96		-.39 *t* = -1.63
Public vs. Government		.40 *t* = 1.49		.34 *t* = 1.99*		-.21 *t* = -.58
White-collar		-.40 *t* = -2.22*		-.10 *t* = -.93		.18 *t* = .75
Self-efficacy		.49 *t* = 5.76***		.26 *t* = 4.84***		-.75 *t* = -6.78***
Growth-mindset (self)		-.04 *t* = -.67		-.04 *t* = -1.25		.19 *t* = 2.63**
Interaction	-.07 *t* = -1.05	-.11 *t* = -2.10*	-.08 *t* = -1.74†	-.08 *t* = -2.28*	.06 *t* = .73	.05 *t* = .75

Note. [a] -1 = first-generation, 1= continuing-generation; †p <.10, p < .05, **p < .01, ***p < .001

Table 5. Indirect effect of meta-lay theory on comfort with advice-seeking through sense of belonging and competence concerns in Study 1

Mediator	Covariates	Index of moderated mediation (CI_{95})	First-generation (CI_{95})	Continuing-generation (CI_{95})
Sense of belonging	No	–.41, .03	.21, .58	.07, .38
	Yes	–.27, –.01	.08, .32	–.04, .16
Competence concerns	No	–.14, .08	.04, .24	.002, .18
	Yes	–. 08, .04	.019, .15	.009, .13

Table 6. Regression Models in Study 2[a]

	Comfort with advice-seeking	
	b	*b*
Gender[b]		-.06
		(-.47)
Ethnic Status[c]		-.06
		(-.41)
Meta-lay theories[d]	.42	.42
	(6.71***)	(6.70***)
Class background[e]	.05	.04
	(.75)	(.69)
Meta-lay theories × Class Background	-.14	-.14
	(-2.25*)	(-2.22*)

Note. [a]$N = 143$; [b]0 = *male*, 1 = *female*; [c]0 = *non-white*, 1 = *white*; [d] –1 = *entity meta-lay theory*, 1 = *incremental meta-lay theory* (contrast-coded); [e] -1 = *first-generation*, 1= *continuing-generation*; [f] *$p < .05$, **$p < .01$, ***$p < .001$; *t* statistic in parenthesis.

Table 7. Regression Models in Study 3[a]

	Dependent variables					
	Comfort in seeking advice		*Sense of belonging*		*Competence concerns*	
	(1)	(2)	(3)	(4)	(5)	(6)
	b	*b*	*b*	*b*	*b*	*b*
Gender[b]		-.53		-.08		-.31
		(-2.26*)		(-.64)		(-1.68†)
Ethic Status[c]		-.49		-.17		.13
		(-2.15*)		(-1.35)		(.76)
Independence concern		.20		.07		-.32
		(1.65)		(.99)		(-3.45***)
Relationship concern		.11		.07		-.19
		(.98)		(1.05)		(-2.12*)
Meta-lay theory condition[d]	.36	.37	.16	.16	-.22	-.16
	(3.23**)	(3.43***)	(2.66**)	(2.63**)	(-2.33*)	(-1.95†)
Class background[e]	.11	.08	.06	.05	-.12	-.07
	(.99)	(.77)	(.94)	(.76)	(-1.24)	(-.85)
Condition × Background	-.29	-.25	-.19	-.17	.28	.25
	(-2.64**)	(-2.37*)	(-3.11**)	(-2.88**)	(2.97**)	(2.96**)
R^2	.09	.18	.08	.13	.08	.31
ΔR^2	.07	.15	.07	.10	.06	.29

Note. [a]$N = 191$; [b]0 = *male*, 1 = *female* [c]0 = *non-white*, 1 = *white*; [d] 0 = *entity meta-theory*, 1 = *incremental meta-lay theory*; [e] 0 = *first-generation*, 1= *continuing-generation*; †$p<.10$, *$p < .05$, **$p < .01$, *** $p < .001$; *t* statistic in parenthesis.

Table 8. Indirect effect of meta-lay theory condition on comfort with advice-seeking through sense of belonging, and competence concern in Study 3

Mediator	Covariates.	Moderated mediation (CI_{95})	First-generation (CI_{95})	Continuing-generation (CI_{95})
Sense of belonging	No	–1.51, –.03	.43, 1.24	–.46, .30
	Yes	–1.37, –.23	.32, 1.15	–.38, .82
Competence concerns	No	–1.15, –.17	.20, .85	–.39, .14
	Yes	–1.00, –.11	.14, .74	–.40, .09

Table 9. Internal Meta-Analysis Results

	DV: Comfort with advice-seeking							
	Main effect of Meta-lay theory		Meta-lay theory × Class Background Effect		Simple effect of Meta-Lay Theory For First-Gen		Simple effect of Meta-Lay Theory For Continuing-Gen	
	No Cov.	With Cov.	No Cov.	With Cov.	No Cov.	With Cov.	No Cov.	With Cov.
Study 1	.37	.14	.07	.10	.26	.17	.21	.44
Study 2	.50	.49	.17	.16	.40	.40	.28	.28
Study 3	.23	.23	.18	.16	.29	.27	.03	.05
Overall	.35	.29	.14	.14	.31	.28	.17	.12
95% CI	[.20, .51]	[.08, .50]	[.05, .22]	[.05, .22]	[.23, .39]	[.15, .41]	[.03, .32]	[-.03, .27]
z value	4.54***	2.69**	3.24**	3.29**	7.62***	4.11***	2.36*	1.60
Cochran's *Q*	8.71*	16.33***	1.58	.51	2.37	5.96†	6.28*	6.53
I^2	77.75%	87.34%	0.00%	0.00%	12.74%	66.55%	69.00%	70.24%

	DV: Sense of belonging (a-path in the mediation model)							
	Main effect of Meta-lay theory		Meta-lay theory × Class Background Effect		Simple effect of Meta-Lay Theory For First-Gen		Simple effect of Meta-Lay Theory For Continuing-Gen	
	No Cov.	With Cov.	No Cov.	With Cov.	No Cov.	With Cov.	No Cov.	With Cov.
Study 1	.37	.17	.11	.10	.31	.19	.20	.06
Study 3	.19	.18	.22	.20	.28	.27	.07	.01
Overall	.28	.17	.16	.15	.30	.23	.14	.04
95% CI	[.10, .46]	[.08, .27]	[.05, .27]	[.05, .24]	[.21, .39]	[.14, .32]	[.01, .27]	[-.06, .14]
z value	3.08**	3.64***	2.94**	3.07**	6.67***	4.84***	2.15*	.80
Cochran's *Q*	4.07*	.02	1.30	1.00	0.11	.70	1.84	1
I^2	75.41%	0.00%	23.07%	0.00%	0.00%	0.00%	45.70%	0.00%

	Sense of Belonging → Advice-Seeking (b-path in the mediation model)	
	Without covariates	With covariates
Study 1	.69	.36
Study 3	.61	.56
Overall	.66	.46
95% CI	[.57, .74]	[.27, .65]
z value	15.37***	4.73***
Cochran's *Q*	2.25	6.46*
I^2	55.51%	84.51%

Note. †$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$; We did not measure participants' sense of belonging in Study 2.

Figure 1. Participants' inclination to seek advice (left panel) and sense of belonging (right panel) as a function of their meta-lay theories about their manager and class background

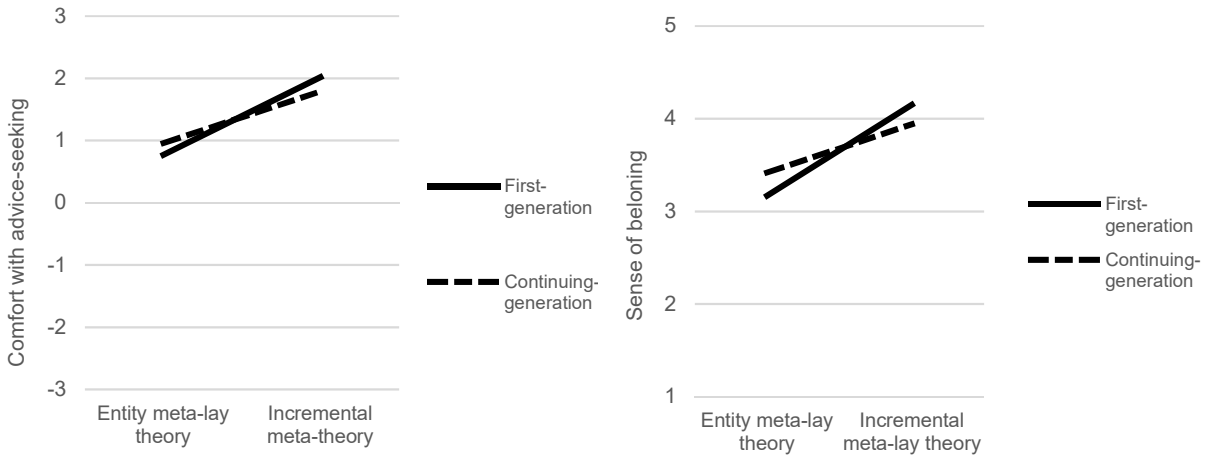


Figure 2. Advice-seeking comfort as a function of experimental condition (meta-lay theories) and class background for Study 2

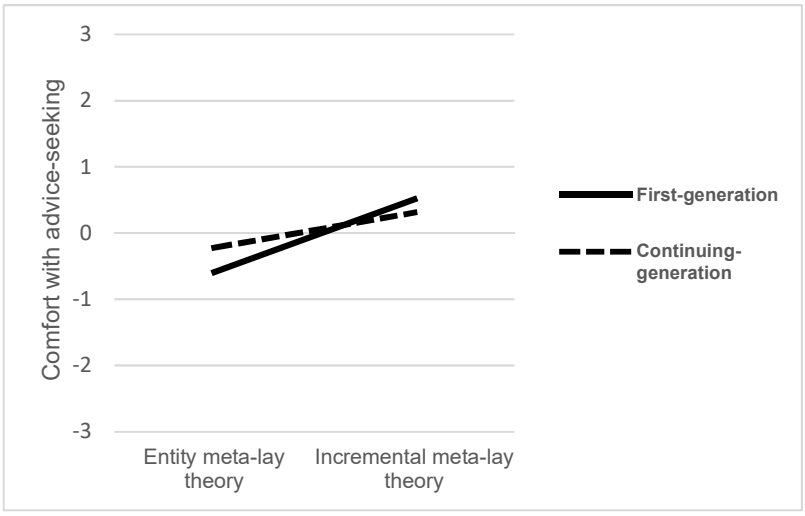
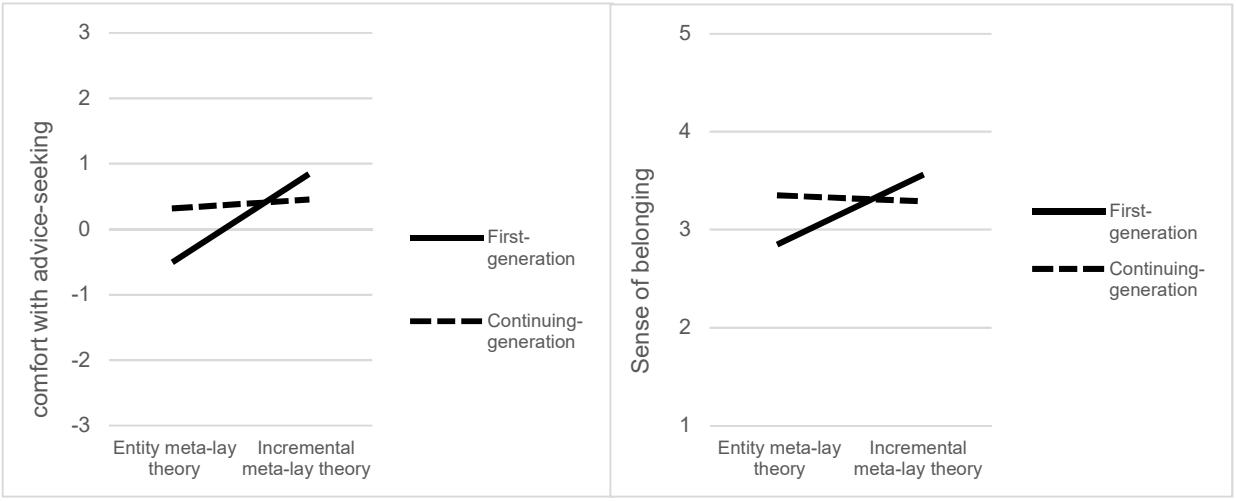


Figure 3. Inclination to seek advice (Left panel) and sense of belonging (Right panel) as a function of experimental condition (meta-lay theories) and class background for Study 3.



References

Adler, N. E., Epel, E. S., Castellazzo, G., & Ickovics, J. R. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy white women. *Health Psychology, 19,* 586 –592.

Aiken, L. S., & Ist, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.

Alexiev, A. S., Jansen, J. J., Van den Bosch, F. A., & Volberda, H. W. (2010). Top management team advice seeking and exploratory innovation: The moderating role of TMT heterogeneity. *Journal of Management Studies*, *47*(7), 1343-1364.

Anderson, C., Brion, S., Moore, D. A., & Kennedy, J. A. (2012). A status-enhancement account of overconfidence. *Journal of personality and social psychology*, *103*(4), 718.

Anderson, C., John, O. P., Keltner, D., & Kring, A. M. (2001). Who attains social status? Effects of personality and physical attractiveness in social groups. *Journal of personality and social psychology*, *81*(1), 116.

Anderson, C., & Kilduff, G. J. (2009). The pursuit of status in social groups. *Current Directions in Psychological Science*, *18*(5), 295-298.

Aronson, J., Fried, C. B., & Good, C. (2002). Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology*, *38*(2), 113–125.

Ashford, S. J. (1986). Feedback-seeking in individual adaptation: A resource perspective. *Academy of Management journal*, *29*(3), 465-487.

Asser, E. S. (1978). Social class and help-seeking behavior. *American Journal of Community Psychology*, *6*(5), 465-475.

Bamberger, P. (2009). Employee help-seeking: Antecedents, consequences and new insights for future research. In *Research in personnel and human resources management* (pp. 49-98). Emerald Group Publishing Limited.

Belmi, P., & Laurin, K. (2016). Who wants to get to the top? Class and lay theories about poIr. *Journal of personality and social psychology*, *111*(4), 505–529.

BlackIll, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child development*, *78*(1), 246–263.

Blunden, H., John, L., Brooks, A. W., & Gino, F. (2017). *Seeker Beware: The Relational Costs of Ignoring Advice*, Harvard Business School Working Paper, No. 18-084, February 2018. Available at https://www.hbs.edu/faculty/Publication%20Files/18-084_2b71bba1-3cba-4ba7-a4fb-d8438834ec06.pdf

Bourdieu, P. (1973). Cultural Reproduction and Social Reproduction. In R. Brown (Ed.), *Knowledge, Education, and Cultural Change* (pp. 71-84). London: Tavistock Publications.

Bourdieu, P. (1990). *In other words: Essays towards a reflexive sociology*. Stanford University Press.

Bolino, M. C. (1999). Citizenship and impression management: Good soldiers or good actors? Academy of Management Review, *24*(1). 82–98.

Boulton, M., Tuckett, D., Olson, C., & Williams, A. (1986). Social class and the general practice consultation. *Sociology of Health & Illness*, *8*(4), 325-350.

Brooks, A. W., Gino, F., & SchIitzer, M. E. (2015). Smart people ask for (my) advice: Seeking advice boosts perceptions of competence. *Management Science*, *61*(6), 1421–1435.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data?. *Perspectives on psychological science*, *6*(1), 3-5.

Carver, C. S. (1997). You want to measure coping but your protocol' too long: Consider the brief cope. *International journal of behavioral medicine*, *4*(1), 92–100.

Calarco, J. M. (2011). "I need help!" Social class and children's help-seeking in elementary school. *American Sociological Review, 76*(6), 862–882.

Calarco, J. M. (2014). Coached for the classroom: Parents' cultural transmission and children's reproduction of educational inequalities. *American Sociological Review*, *79*(5), 1015–1037.

Coburn, K. M., & Vevea, J. L. (2017). Iightr: Estimating Iight-function models for publication bias [Computer software].

Cohen, G. L., Steele, C. M., & Ross, L. D. (1999). The mentor's dilemma: Providing critical feedback across the racial divide. *Personality and Social Psychology Bulletin*, *25*(10), 1302-1318.

Cooper, R. S. (1991). *Information processing in the judge-advisor system of group decision-making* (Unpublished master's thesis). University of Illinois, Urbana–Champaign.

Cornally, N., & McCarthy, G. (2011). Help-seeking behavior: A concept analysis. *International journal of nursing practice*, *17*(3), 280–288.

Croizet, J. C., & Claire, T. (1998). Extending the concept of stereotype threat to social class: The intellectual underperformance of students from low socioeconomic backgrounds. *Personality and Social Psychology Bulletin, 24*(6): 588–594.

Dweck, C. S. (2006). *Mindset: The new psychology of success*. Random House Incorporated.

Dweck, C. S. (2013). *Self-theories: Their role in motivation, personality, and development*.

psychology press.

Dweck, C. S., Chiu, C. Y., & Hong, Y. Y. (1995). Implicit theories and their role in judgments and reactions: A word from two perspectives. *Psychological inquiry*, *6*(4), 267-285.

Dweck, C, & Elliott, E. (1983). Achievement motivation. In E. Heatherington (Ed.), *Handbook of child psychology* (Vol. 4, pp. 643-691). New York: Wiley.

Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological review*, *95*(2), 256–273.

Dweck, C. S., & Master, A. (2009). Self-theories and motivation: Students' beliefs about intelligence. In K. R. Intzel & A. Wigfield (Eds.), *Handbook of motivation at school* (pp. 123–140). New York: Routledge.

Dweck, C. S., Walton, G. M., & Cohen, G. L. (2011). Academic tenacity: Mindsets and skills that promote long-term learning. *Gates Foundation. Seattle, WA: Bill & Melinda Gates Foundation*.

Ehrlinger, J., Mitchum, A. L., & Dweck, C. S. (2016). Understanding overconfidence: Theories of intelligence, preferential attention, and distorted self-assessment. *Journal of Experimental Social Psychology*, *63*, 94-100.

Elliott, E. S., & Dweck, C. S. (1988). Goals: An approach to motivation and achievement. *Journal of personality and social psychology*: *54*(1), 5–12.

Emerson, K. T., & Murphy, M. C. (2015). A company I can trust? Organizational lay theories moderate stereotype threat for women. *Personality and Social Psychology Bulletin*, *41*(2), 295–307.

Fiske, S. T., & Markus, H. R. (Eds.). (2012). *Facing social class: How societal rank influences interaction*. Russell Sage Foundation.

Feng, B., & Magen, E. (2016). Relationship closeness predicts unsolicited advice giving in supportive interactions. *Journal of Social and Personal Relationships*, *33*(6), 751-767.

Forret, M. L., & Dougherty, T. W. (2004). Networking behaviors and career outcomes: differences for men and women? *Journal of Organizational Behavior, 25*(3): 419–437.

Friedman, A., Carmeli, A., & Dutton, J. E. (2018). When does respectful engagement with one's supervisor foster help-seeking behaviors and performance? *Journal of Vocational Behavior*, *104*, 184-198.

Geller, D., & Bamberger, P. A. (2012). The impact of help seeking on individual task performance: the moderating effect of help seekers' logics of action. *Journal of Applied Psychology*, *97*(2), 487 – 497.

Gibbons, A. M., Sniezek, J. A., & Dalal, R. S. (2003, November). Antecedents and consequences of unsolicited versus explicitly solicited advice. In *D. Budescu (Chair), Symposium in Honor of Janet Sniezek. Symposium presented at the annual meeting of the society for judgment and decision making, Vancouver, BC*.

Gino, F., Brooks, A. W., & SchIitzer, M. E. (2012). Anxiety, advice, and the ability to discern: Feeling anxious motivates individuals to seek and use advice. *Journal of personality and social psychology*, *102*(3), 497 – 512.

Gino, F., & Moore, D. A. (2007). Effects of task difficulty on use of advice. *Journal of Behavioral Decision Making*, *20*(1), 21-35.

Goh, J. X., Hall, J. A., & Rosenthal, R. (2016). Mini meta-analysis of your own studies: Some arguments on why and a primer on how. *Social and Personality Psychology Compass*, *10*(10), 535-549.

Good, C., Rattan, A., & Dweck, C. S. (2012). Why do women opt out? Sense of belonging and

women's representation in mathematics. *Journal of personality and social psychology*, *102*(4), 700 – 717.

Haimovitz, K., & Dweck, C. S. (2016). Parents' views of failure predict children's fixed and growth intelligence mind-sets. *Psychological Science*, *27*(6), 859-869.

Hansen, M. T. (2002). Knowledge networks: Explaining effective knowledge sharing in multiunit companies. *Organization science*, *13*(3), 232–248.

Henderson, V., & Dweck, C. (1990). Motivation and achievement. In S. Feldman & G. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 308–329). Cambridge, MA: Harvard Press.

Heslin, P. A. (2009). "Potential" in the eye of the beholder: the role of managers who spot rising stars. *Industrial and Organizational Psychology*, *2*(4), 420-424.

Heslin, P. A., Latham, G. P., & VandeWalle, D. (2005). The effect of implicit person theory on performance appraisals. *Journal of Applied Psychology*, *90*(5), 842 – 856.

Heslin, P. A., Vandewalle, D., & Latham, G. P. (2006). KEEN TO HELP? MANAGERS'IMPLICIT PERSON THEORIES AND THEIR SUBSEQUENT EMPLOYEE COACHING. *Personnel Psychology*, *59*(4), 871-902.

Hofmann, D. A., Lei, Z., & Grant, A. M. (2009). Seeking help in the shadow of doubt: the sensemaking processes underlying how nurses decide whom to ask for advice. *Journal of Applied Psychology*, *94*(5), 1261–1274.

Hong, Y. Y., Chiu, C. Y., Dweck, C. S., Lin, D. M. S., & Wan, W. (1999). Implicit theories, attributions, and coping: A meaning system approach. *Journal of Personality and Social psychology*, *77*(3): 588–599.

Housel, T. H., & Harvey, V. L. (2009). *The invisibility factor: Administrators and faculty reach*

out to first generation college students. Boca Raton, FL: Brown Walker Press.

Ibarra, H. (1993). Network centrality, poIr, and innovation involvement: Determinants of technical and administrative roles. *Academy of Management journal*, *36*(3), 471–501.

Jonas, E., & Frey, D. (2003). Information search and presentation in advisor–client interactions. *Organizational Behavior and Human Decision Processes*, *91*(2), 154-168.

Jonas, E., Schulz-Hardt, S., & Frey, D. (2005). Giving advice or making decisions in someone else's place: The influence of impression, defense, and accuracy motivation on the search for new information. *Personality and Social Psychology Bulletin*, *31*(7), 977-990.

Kadushin, C. (2012). *Understanding social networks: Theories, concepts, and findings*. OUP USA.

Katz, D. (1960). The functional approach to the study of attitudes. *Public opinion quarterly*, *24*(2), 163-204.

Kennedy, J. A., Anderson, C., & Moore, D. A. (2013). When overconfidence is revealed to others: Testing the status-enhancement theory of overconfidence. *Organizational Behavior and Human Decision Processes*, *122*(2), 266-279.

Kim, S., & Lee, H. (2006). The impact of organizational context and information technology on employee knowledge-sharing capabilities. *Public administration review*, *66*(3), 370-385.

Kim, Y. K., & Sax, L. J. (2009). Student–faculty interaction in research universities: Differences by student gender, race, social class, and first-generation status. *Research in Higher Education, 50*(5), 437–459.

Kim, H. S., Sherman, D. K., & Taylor, S. E. (2008). Culture and social support. *American Psychologist*, *63*(6), 518.

Kray, L. J. (2000). Contingent Iighting in self-other decision making. *Organizational behavior*

and human decision processes, *83*(1), 82-106.

Kray, L., & Gonzalez, R. (1999). Differential Iighting in choice versus advice: I'll do this, you do that. *Journal of Behavioral Decision Making*, *12*(3), 207-218.

Lareau, A. (2011). *Unequal childhoods: Class, race, and family life*. University of California Press.

Larrick, R. P., & Soll, J. B. (2006). Intuitions about combining opinions: Misappreciation of the averaging principle. *Management science*, *52*(1), 111-127.

Lee, F. (1997). When the going gets tough, do the tough ask for help? Help seeking and poIr motivation in organizations. *Organizational behavior and human decision processes*, *72*(3), 336–363.

Leslie, S. J., Cimpian, A., Meyer, M., & Freeland, E. (2015). Expectations of brilliance underlie gender distributions across academic disciplines. *Science*, *347*(6219), 262-265.

Lin, N. (1999). Social networks and status attainment. *Annual review of sociology*, *25*(1): 467–487.

Markus, H. R., & Kitayama, S. (2003). Models of agency: Sociocultural diversity in the construction of action. In V. Murphy-Berman & J. J. Berman (Eds.), *Nebraska Symposium on Motivation: Cultural differences in perspectives on the self* (Vol. 49, pp. 1–57). Lincoln, NE: University of Nebraska Press.

Morrison, E. W. (2002). Information seeking within organizations. *Human Communication Research, 28*(2), 229-242.

Murphy, M. C., & Dweck, C. S. (2010). A culture of genius: How an organization's lay theory shapes people's cognition, affect, and behavior. *Personality and Social Psychology Bulletin*, *36*(3), 283–296.

Nadler, A., Ellis, S., & Bar, I. (2003). To seek or not to seek: The relationship betIen help seeking and job performance evaluations as moderated by task-relevant expertise. *Journal of Applied Social Psychology*, *33*(1), 91-109.

Newman, R. S. (1990). Children's help-seeking in the classroom: The role of motivational factors and attitudes. *Journal of educational psychology*, *82*(1), 71.

Nussbaum, A. D., & Dweck, C. S. (2008). Defensiveness versus remediation: Self-theories and modes of self-esteem maintenance. *Personality and Social Psychology Bulletin*, *34*(5), 599-612.

Park, D., Gunderson, E. A., Tsukayama, E., Levine, S. C., & Beilock, S. L. (2016). Young children's motivational frameworks and math achievement: Relation to teacher-reported instructional practices, but not teacher theory of intelligence. *Journal of Educational Psychology*, *108*(3), 300.

Pascarella, E. T., Pierson, C. T., Wolniak, G. C., & Terenzini, P. T. (2004). First-generation college students: Additional evidence on college experiences and outcomes. *The Journal of Higher Education*, *75*(3), 249-284.

Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015). Mind-set interventions are a scalable treatment for academic underachievement.

Payne, S. C., & Huffman, A. H. (2005). A longitudinal examination of the influence of mentoring on organizational commitment and turnover. *Academy of Management Journal*, *48*(1), 158-168.

Pfeffer, J. (2010). *PoIr: Why some people have it and some people don't.* San Francisco, CA: Harper Collins Publishers.

Rader, C. A., Larrick, R. P., & Soll, J. B. (2017). Advice as a form of social influence:

Informational motives and the consequences for accuracy. *Social and Personality Psychology Compass*, *11*(8), e12329.

Rattan, A., Good, C., & Dweck, C. S. (2012). "It's ok—Not everyone can be good at math": Instructors with an entity theory comfort (and demotivate) students. *Journal of Experimental Social Psychology*, *48*(3), 731-737.

Rattan, A., Savani, K., Komarraju, M., Morrison, M. M., Boggs, C., & Ambady, N. (2018). Meta-lay theories of scientific potential drive underrepresented students' sense of belonging to science, technology, engineering, and mathematics (STEM). *Journal of Personality and Social Psychology, 115*(1), 54-75.

Reich, D. A., & Arkin, R. M. (2006). Self-doubt, attributions, and the perceived implicit theories of others. *Self and Identity*, *5*, 89–109.

Ridgeway, C. L. (2014). Why status matters for inequality. *American Sociological Review*, *79*(1), 1-16.

Riehl, R. J. (1994). The Academic Preparation, Aspirations, and First-Year Performance of First-Generation Students. *College and University*, *70*(1), 14-19.

Rivera, L. (2015). *Pedigree: How Elite Students Get Elite Jobs*. Princeton, NJ: Princeton University Press.

Robins, R. W., & Pals, J. L. (2002). Implicit self-theories in the academic domain: Implications for goal orientation, attributions, affect, and self-esteem change. *Self and Identity*, *1*(4), 313–336.

Rosette, A. S., Mueller, J. S., & Lebel, R. D. (2015). Are male leaders penalized for seeking help? The influence of gender and asking behaviors on competence perceptions. *The Leadership Quarterly*, *26*(5), 749-762.

Schaerer, M., Tost, L. P., Huang, L., Gino, F., & Larrick, R. (2018). Advice giving: A subtle pathway to poIr. *Personality and Social Psychology Bulletin*, *44*(5), 746-761.

Schrah, G. E., Dalal, R. S., & Sniezek, J. A. (2006). No decision-maker is an Island: integrating expert advice with information acquisition. *Journal of Behavioral Decision Making*, *19*(1), 43-60.

Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Iinman, S. Wright, & M. Johnston, Measures in health psychology: A user's portfolio. Causal and control beliefs (pp. 35-37). Windsor, UK: NFER-NELSON.

Sniezek, J. A., & Buckley, T. (1995). Cueing and cognitive conflict in Judge-Advisor decision making. *Organizational behavior and human decision processes*.

Somers, P., Woodhouse, S. R., & Cofer Sr, J. E. (2004). Pushing the boulder uphill: The persistence of first-generation college students. *Naspa Journal*, *41*(3), 418-435.

Stephens, N. M., Brannon, T. N., Markus, H. R., & Nelson, J. E. (2015). Feeling at home in college: Fortifying school-relevant selves to reduce social class disparities in higher education. *Social issues and policy review*, *9*(1), 1–24.

Stephens, N. M., Dittmann, A. G., & Townsend, S. S. M. (2017). Social class and models of competence: How gateway institutions disadvantage working-class Americans and how to intervene. In C. Dweck, A. Elliot, & D. Yeager (Eds.), *Handbook of competence and motivation (2nd Edition): Theory and application.* New York, NY: Guilford Press.

Stephens, N. M., Fryberg, S. A., Markus, H. R., Johnson, C. S., & Covarrubias, R. (2012). Unseen disadvantage: how American universities' focus on independence undermines the academic performance of first-generation college students. *Journal of personality and social psychology*, *102*(6), 1178–1197.

Stephens, N. M., Hamedani, M. G., & Destin, M. (2014). Closing the social-class achievement gap a difference-education intervention improves first-generation students' academic performance and all students' college transition. *Psychological science*, *25*(4), 943–953.

Stephens, N. M., Markus, H. R., & Phillips, L. T. (2014). Social class culture cycles: How three gateway contexts shape selves and fuel inequality. *Annual Review of Psychology*, *65*, 611-634.

Stephens, N. M., Markus, H. R., & Townsend, S. M. (2007). Choice as an act of meaning: The case of social class. *Journal of Personality and Social Psychology*, 93, 814 – 830.

Stephens, N. M., & Townsend, S. S. (2013). Rank is not enough: Why I need a sociocultural perspective to understand social class. *Psychological Inquiry*, *24*(2), 126-130.

Stephens, N. M., Townsend, S. S., Markus, H. R., & Phillips, L. T. (2012). A cultural mismatch: Independent cultural norms produce greater increases in cortisol and more negative emotions among first-generation college students. *Journal of Experimental Social Psychology*, *48*(6), 1389-1393.

Stephens, N. M., Townsend, S. S., Hamedani, M. G., Destin, M., & Manzo, V. (2015). A difference-education intervention equips first-generation college students to thrive in the face of stressful college situations. *Psychological science*, *26*(10), 1556-1566.

Taylor, S. E., Sherman, D. K., Kim, H. S., Jarcho, J., Takagi, K., & Dunagan, M. S. (2004). Culture and social support: who seeks it and why? *Journal of personality and social psychology*, *87*(3), 354–362.

Terenzini, P. T., Springer, L., Yaeger, P. M., Pascarella, E. T., & Nora, A. (1996). First-generation college students: Characteristics, experiences, and cognitive development. *Research in Higher education*, *37*(1), 1-22.

Tost, L. P., Gino, F., & Larrick, R. P. (2012). PoIr, competitiveness, and advice taking: Why the poIrful don't listen. *Organizational Behavior and Human Decision Processes*, *117*(1), 53-65.

Van der Vegt, G. S., Bunderson, J. S., & Oosterhof, A. (2006). Expertness diversity and interpersonal helping in teams: Why those who need the most help end up getting the least. *Academy of Management Journal*, *49*(5), 877-893.

Van Kleef, G. A., Homan, A. C., Finkenauer, C., Gündemir, S., & Stamkou, E. (2011). Breaking the rules to rise to poIr: How norm violators gain poIr in the eyes of others. *Social Psychological and Personality Science*, *2*(5), 500-507.

Viechtbauer, W. (2005). Bias and efficiency of meta-analytic variance estimators in the random-effects model. *Journal of Educational and Behavioral Statistics*, *30*(3), 261-293.

Viechtbauer, W. (2010). Conducting meta-analyses in R with the metafor package. *Journal of statistical software*, *36*(3).

Walton, G. M., & Cohen, G. L. (2007). A question of belonging: race, social fit, and achievement. *Journal of personality and social psychology*, 92(1), 82–96.

Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes of minority students. *Science, 331,* 1447–1451.

Wolff, H. G., & Moser, K. (2009). Effects of networking on career success: a longitudinal study. *Journal of Applied Psychology*, *94*(1), 196–206.

Yaniv, I., & Kleinberger, E. (2000). Advice taking in decision making: Egocentric discounting and reputation formation. *Organizational behavior and human decision processes*, *83*(2), 260-281.

Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe

that personal characteristics can be developed. *Educational psychologist*, *47*(4), 302-314.

Yeager, D. S., Walton, G. M., Brady, S. T., Akcinjar, E. N., Paunesku, D., Keane, L., ... & Gomez, E. M. (2016). Teaching a lay theory before college narrows achievement gaps at scale. *Proceedings of the National Academy of Sciences*, 113(24): E3341–E3348.

Zeng, G., Hou, H., & Peng, K. (2016). Effect of Growth Mindset on School Engagement and Psychological Ill-Being of Chinese Primary and Middle School Students: The Mediating Role of Resilience. *Frontiers in psychology*, *7*, 1873.

Appendix A

Scale items in Studies 1 – 3

1. Manager's Implicit Theories of Intelligence

Entity Beliefs Subscale (1= *Strongly disagree*, 7 = *Strongly agree*)
1. I think my manager at (the fictitious company) seems to believe that people have a certain amount of intelligence, and they can't really do much to change it.
2. I get the sense that my manager at (the fictitious company) believes that people's intelligence is something that can't be changed very much.
3. I think my manager at (the fictitious company) believes that people can't really change how intelligent they are.
4. My manager at (the fictitious company) seems to believe that people can learn new things, but they can't really change their basic intelligence.

Incremental Beliefs Subscale (1= *Strongly disagree*, 7 = *Strongly agree*)
1. My manager at (the fictitious company) seems to believe that people can significantly change their intelligence level.
2. My manager at (the fictitious company) seems to believe that people can always substantially change how intelligent they are.
3. My manager at (the fictitious company) seems to believe that people can develop their intelligence.
4. My manager at (the fictitious company) seems to believe that people can change their intelligence considerably.

2. Comfort with advice-seeking used in Study 1

Comfort in seeking advice (-3= *Extremely uncomfortable*, 3= *Extremely comfortable*)

1) How comfortable are you in soliciting task-related advice from your manager?

2) How comfortable are you in asking advice from your manager on how to solve a work-related problem that you're not sure about?

3. Comfort with advice-seeking used in Study 2

Comfort in seeking advice (-3= *Extremely uncomfortable*, 3= *Extremely comfortable*)

1) Now we'd like to know how you would behave after having that conversation with your manager. First, how comfortable would you be in approaching your manager for work-related advice?

2) Second, how comfortable would you be in soliciting task-related advice from your manager at Micron Technology?

3) Third, how comfortable would you be in asking advice from your manager about how to be more effective at your job?

4) Fourth, how comfortable would you be in asking advice from your manager about how to be better at your job?

5) Imagine that you are working on an important project at work at Micron Technology. While working on this project, you encounter a problem that you are not sure how to solve. How comfortable would you be in approaching your manager to ask for advice on how to solve this problem?

6) Imagine that you discovered that you have inadvertently made a substantial error in making an important expense report. How comfortable would you be in approaching your manager to ask for advice on how to solve this problem?

Frequency to seek advice (1= *Never*, 4 = *Regularly*)

1) How often would you seek task-related advice from your manager at Micron Technology?

2) How often would you interact with your manager at Micron Technology to ask for advice on work-related tasks?

3) How often would you ask your manager at Micron Technology for advice on how to be better at your job?

4) How often would you ask your manager at Micron Technology for advice on how to be more effective at your job?

3. Motivation to seek advice used in Study 3

Comfort in seeking advice (-3 = *Extremely uncomfortable*, 3 = *Extremely comfortable*)

How comfortable would you be in the following...?

1) Approaching your manager at Oliver Wyman for work-related advice.
2) Soliciting task-related advice from your manager.
3) Asking advice from your manager on how to be better at your job.
4) Asking advice on how to solve a work-related problem that you're not sure about.
5) Asking advice from your manager on how well you are performing at your job.
6) Imagine that you have inadvertently made a substantial error in making an important report for your manager. How comfortable would you be in approaching your manager at Oliver Wyman to ask for advice on how to solve this problem?
7) Imagine that you saw an announcement regarding an online certificate program from the HR department at Oliver Wyman. It looks like it would be a great chance to improve your skills. How comfortable would you be in asking advice from your manager about what to do?

4. Stereotype expectation

Competence concern (1= *Extremely unlikely*, 7= *Extremely likely*)

Q. Based on what you read, please answer the following questions.

1) What is the likelihood that your manager at Oliver Wyman will think that you are smart?
2) What is the likelihood that your manager at Oliver Wyman will think that you are qualified?
3) What is the likelihood that your manager at Oliver Wyman will think that you are intelligent?
4) What is the likelihood that your manager at Oliver Wyman will think that you are competent?
5) What is the likelihood that your manager at Oliver Wyman will think that you are capable?

Sense of Belonging (1= *Not at all*, 5 = *Very*)

Q. After that onboarding session, how would you feel about working at Oliver Wyman? Please answer the following questions.

1) To what extent would you feel that you belong at Oliver Wyman?
2) To what extent would you feel like an outsider at Oliver Wyman? (reverse-coded)
3) To what extent would you feel respected at Oliver Wyman?
4) To what extent would you feel valued at Oliver Wyman?
5) To what extent would you feel accepted Oliver Wyman?

5. Alternative explanations

Independence concern (1= *Strongly disagree*, 7= *Strongly agree*)

Q. Now we're going to ask you some questions about your personality. To what extent do you agree or disagree with the following statements?

1) Being independent is important to me.
2) Being self-reliant is important to me.

Relationship concern (1= *Strongly disagree*, 7= *Strongly agree*)

1) In general, I don't want other people to feel stressed out about my problems.
2) In general, I don't want to burden other people with my problems.

Appendix B

1. Meta-lay theories manipulation in Study 2

Entity meta-theory condition

On your first day, you met your manager, who outlined his expectations for new employees. "We get pretty busy around here," he said, "so the one thing that I want from everybody on my team is to be smart. You seem like you're a capable person, which is why HR presumably hired you for this job. I've worked with many people who were in your role, and the one thing that I've learned is that you've either got what it takes, or you don't.

Incremental meta-theory condition

On your first day, you met your manager, who outlined his expectations for new employees. "We get pretty busy around here," he said, "so the one thing that I want from everybody on my team is to be smart. You seem like you're a capable person, which is why HR presumably hired you for this job. I've worked with many people who were in your role, and the one thing that I've learned is that everybody's got what it takes, as long as they work hard."

2. Meta-lay theories manipulation in Study 3

Entity meta-theory condition

Imagine that you just started work as a summer intern at Oliver Wyman, a well-regarded strategy consulting firm in the United States. There is potential to receive a full-time offer after three months. A full-time offer is very attractive to you, because the company offers competitive salary and benefits.

On your first day, your manager outlined his expectations for new employees during the onboarding session for all new hires in the consulting department. "We get pretty busy around here," he said, "so I need everybody on my team to be smart. I've worked with many people in this company, and the one thing that I've learned is that you've either got what it takes, or you don't."

Incremental meta-theory condition

Imagine that you just started to work as a summer intern at Oliver Wyman, a well-regarded strategy consulting firm in the United States. There is potential to receive a full-time offer after three months. A full-time offer is very attractive to you, because the company offers competitive salary and benefits.

On your first day, your manager outlined his expectations for new employees during the onboarding session for all new hires in the consulting department. "We get pretty busy around here," he said, "so I need everybody on my team to be smart. I've worked with many people in this company, and the one thing that I've learned is that everybody's got what it takes as long as they work hard."

Inhyun Justine Han

100 Darden Blvd. | Charlottesville, VA 22901 |
hani16@darden.virginia.edu|ih4yz@virginia.edu|(434) 270-2825

EDUCATION

University of Virginia **PhD May 2019**
Darden Graduate School of Business
Major: Leadership and Organizational Behavior
Dissertation: Meta-lay theory and advice-seeking in the workplace
Committee: Melissa Thomas-Hunt (co-chair), Peter Belmi (co-chair), Martin Davidson

Korea University **MA 2008**
Major: Management
Concentrations: Conflict Management and Negotiation
Thesis: When are integrative tactics more effective:
The moderating effects of moral identity and the use of distributive tactics.

Hanyang University **BA 2005**
Major: English Literature and Political Science (*cum laude* with High Honors)

RESEARCH INTERESTS

Proactive behaviors in organizations
Lay theories and mindset interventions
Status and inequality
Diversity in teams

PUBLICATIONS

Han, I., Kwon, S., Bae, J., & Park, K. (2012). When are integrative tactics more effective? The moderating effects of moral identity and the use of distributive tactics. *International Journal of Conflict Management*, 23(2), 133-150.
**Master's thesis, Grant from the Korean Academy of Business Ethics.

DISSERTATION

Han, I., Belmi, P., & Thomas-Hunt, M. C. Why seeing growth mindset at work matters, especially for those who grew up with little: First-generation employees feel comfortable asking for advice when they believe their manager is an incremental theorist. In preparation for submission to *Organizational Behavior and Human Decision Processes.*

HONORS AND AWARDS

OB Department Nominee, AOM Doctoral Consortium (2018)
Dissertation Research Fund recipient ($10,000), Darden School of Business (2018, 2019)
Graduate Student Fellowship, University of Virginia (2014 – present)
Research Grant, Korean Academy of Business Ethics (2012)
Godswill Church Foundation Scholarship for academic achievement (2006 – 2007)

RESEARCH IN PROGRESS

Han, I., Thomas-Hunt, M.C., Sheldon, O. J., & Belmi, P. (manuscript in preparation). We are in a double bind: A harmful effect of women's defensive helping in the workplace. Target: *Journal of Applied Psychology*

Han, I., & Belmi, P, & McCluney, C. (data collection in progress). Social costs of repeated advice-seeking: Advice-seeking does not always lead to greater perceptions of competence. Target: *Organization Science*

Han, I., & Choi, H. (data collection in progress). A multi-level approach: Political conservatism at the national level in attitudes toward women as business leaders: Target: *Psychological Science*

Elisa, A., Thomas-Hunt, M. C. &, **Han, I**. (data collection in progress). You can't get what you don't ask for, really: The status advantage and negotiation outcomes. Target: *Journal of Applied Psychology*

Belmi, P. & Koval, C., & **Han, I.** (data collection in progress). Should I trust this feedback? First-generation individuals are distrustful of critical feedback from managers with entity mindsets. Target: Organizational Behavior and Human Decision Processes

Han, I. &, Sarasvathy, S. D. When do people overcome their preference for homophily? The effect of an entrepreneur's social status and risk-taking propensity on the composition of founding teams. Target: *Journal of Business Venturing*

Han, I. (working paper). Who is a gatekeeper? The impact of uncertainty on gender inequality in promotion (review paper). Target: *Academy of Management Review*

CONFERENCE PRESENTATIONS

Han, I., & Thomas-Hunt, M. (2019). The double-bind dilemma: The effects of female star's defensive helpings on teammates' perceptions. *Academy of Management (AOM),* Boston, MA.
*The paper will be presented in August.

Han, I., Belmi, P., & Thomas-Hunt, M. (2019). Why Seeing Growth-Mindset at Work Matters, Especially for Those Who Grew Up with Little: First-Generation Employees Feel

Comfortable Asking for Advice When They Believe Their Manager is an Incremental Theorist. *Positive Organizational Scholarship (POS) Research Conference,* Ann Arbor, MI.
*The paper will be presented in June.

Han, I., Belmi, P., & Thomas-Hunt, M. (2018). How managerial lay theories shape the advice-seeking motivation of first-generation individuals. *Academy of Management Conference*, Chicago, IL.

Han, I. (2018). Developing Organizational Research on Financial Precarity, Inequality, and Socioeconomic Status [Professional Development Workshop]. *Academy of Management Conference*, Chicago, IL.

Han, I., Choi, H., & Ryoo, J. (2018). A multi-level approach: Political Conservatism at the National Level in Attitudes Toward Women as Business Leaders. Poster presentation. *Society for Personality and Social Psychology*, Atlanta, GA.

Han, I., Thomas-Hunt, M., & Sheldon, O. (2016). What to do when I'm the manager's pet?: Managing the effects of favoritism in a collaborative environment. Paper presented at the *International Association of Conflict Management Conference*, New York City, NY.

Han, I., Kwon, S., Bae, J. (2009). When are integrative tactics more effective? The moderating effects of moral identity and the use of distributive tactics. *International Association of Conflict Management Conference*, Kyoto, Japan.

TEACHING EXPERIENCE

Teaching Assistant, University of Virginia, Darden School of Business
GBUS 7341 Leading Organizations, MBA Course, Fall 2017-2018
GBUS 7619 Paths to Power, MBA Course, Spring 2018-2019
GBUS 7618 Effectual Entrepreneurship, MBA Course, Spring 2019

Guest Lecturer, School of Engineering and Applied Science, University of Virginia
STS 1800 Business Fundamentals, Negotiation, Summer 2018
STS 1800 Business Fundamentals, Team Dynamics and Negotiation, Fall 2018
**Instructor rating: 4.49/5.00, 25 students

Instructor, School of Engineering and Applied Science, University of Virginia
STS 1800 Business Fundamentals, Organizational Behavior, Spring 2019

INDUSTRY EXPERIENCE

Researcher / Korean Labor Institute (2008 – 2009)
Research Affirmative Action policies for women

Analyst / Mercer HR Korea (2006 – 2007)
HR consulting firm that specializes in designing organizational structure

Project team member / Samsung SDS (2005 – 2006)
High Speed Railway Signaling System

PROFESSIONAL AFFILIATIONS

Academy of Management (*AOM*)
Society for Personality and Social Psychology (*SPSP*)
International Association for Conflict Management (*IACM)*
Society for the Science of Motivation (*SSM*)

REFERENCES

Melissa Thomas-Hunt
Professor of Management
Owen Graduate School of Management
Vanderbilt University
m.thomas-hunt@vanderbilt.edu
+1-607-592-3038

Martin Davidson
Professor of Business Administration
Darden School of Business
University of Virginia
davidsonm@darden.virginia.edu
+1-434-924-4483

Peter Belmi
Assistant Professor
Leadership and Organizational Behavior
Darden School of Business
University of Virginia
belmip@darden.virginia.edu
+1-434-924-7489

Saras Sarasvathy
Professor of Business Administration
Entrepreneurship
Darden School of Business
University of Virginia
sarasvathys@darden.virginia.edu
+1-434-982-2079