The Impact of Diversity and Social Cues on Consumer Judgments

By

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ABSTRACT

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Essay 1: How Familial Cues Impact Judgments of Competence

Service providers and product manufacturers alike often use familial cues in their narratives, such as highlighting that they have pursued the same profession as their parent. Such cues are prominent in medical, financial, educational, and maintenance services, handmade products (e.g., furniture), and consumable goods (e.g., juice, snacks, baby products). This research demonstrates that familial cues shape judgments of the service provider’s competence, and that perceived engagement in a career or profession mediates the effect of familial cues on consumer judgments. In understanding this relationship more deeply, we identify boundary conditions where the cue is less effective or ineffective, and test for and eliminate alternative explanations such as intrinsic motivation, extrinsic motivation, and perceived natural ability.

Essay 2: How Diversity Impacts Judgments of Morality

This research investigates how the racial, gender, and nationality diversity of a team representing a firm influences perceptions of moral traits and immoral behavior. Our main proposition is that diverse teams are perceived to be more moral and less likely to engage in immoral behaviors as compared to homogeneous teams because they are perceived to have be exposed to broader perspectives. Members of diverse teams are consequently inferred to incorporate more
perspectives in their decision making, and engage in perspective taking. Therefore, diverse teams are likely to self-regulate and exercise restraint in actions detrimental to consumers.

**Essay 3: How Spouse’s Attractiveness Impact Judgments of Morality**

People form judgments about others based on their appearance, but how do judges form impressions of people based on the people they choose to spend their time with, especially their spouses? This research investigates the effect of spouse’s attractiveness on the perceived morality of a focal person, as well as credibility of the firm represented by the focal person. We propose that when a man is married to a less-attractive woman, their relationship will appear to be stronger because of its communal nature (as opposed to an exchange relationship) based in a common value of morality traits. This association is attenuated when the focal person is female and when the judges are male.
DEDICATION

For my parents, Sachin and Daisy Chowdhry, and for Brian Cohen.
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And to James, thank you for everything, but especially for waiting.
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INTRODUCTION

Service providers and producers of goods regularly share information about their social associations (e.g., information about their parents, spouses, and work teams). Politicians often use their families as cues to signal morality or “family values.” Leaders who portray themselves as married or in long-term relationships are perceived as more cautious and less risky (Roussanov and Savor 2014), and the personality of spouses can predict career success (Solomon and Jackson 2014). Fortune 500 companies dedicate pages of their annual reports to statistics on the diversity of the company’s workforce, as well as the company’s continued commitment to diversity and inclusion (e.g., ExxonMobil 2017; Walmart 2019).

Understanding how information about social associations (e.g., families, parents, spouses, coworkers) influences consumer perceptions is an important question for the field. Though the marketing research literature has examined how consumers form perceptions of a service provider or target professional after the service is provided or product is consumed (e.g., Parasuraman, Zeithaml, and Berry 1988), as well as the downstream consequences of both competence and morality judgments (e.g., Kirmani et al. 2017), what has been explored to a lesser extent is how these judgments are formed prior to a transaction.

Building on the limited extant work, I examine how the experience (Essay One) and appearance (Essays Two and Three) of associated others impacts competence judgements, morality judgements, and behavioral intentions. I examine how perceptions of a target person can be shaped by external signals, such as the profession of a focal person’s parent, the attractiveness of a focal person’s spouse, and the diversity of a team.

In Essay One, I study the role of family associations to a profession in competence judgments. Specifically, I examine why a shared profession between a target and his or her
parent positively impacts consumers’ judgments of the target’s competence. I find that people who share a profession with a parent are perceived to be more competent because they are perceived to have been more engaged in that profession compared to people who have a similar educational background, but do not share a profession with a parent. In Essays Two and Three, I examine how work team and spousal associations impact morality judgments. In Essay Two, I examine how the visible diversity (e.g., race, gender, nationality) of a target’s work team impacts judgments of the target team’s morality after moral breaches. Nine studies demonstrate that diverse teams are perceived to be more moral because they are expected to have and share diverse perspectives, which in turn function as a form of moral regulation. In Essay Three, I study why male targets married to unattractive women are perceived to be more moral than single male targets or male targets married to attractive women.

The findings from these essays carry important implications for how individual business leaders, firms, and managers design and share information about themselves and their teams, especially teams that are the face of the firm to important stakeholders. To consumers, the information an individual or business shares provides insight into their thought process. That is, the diversity of a team impacts the psychological diversity a team is exposed to, parents’ professions impact the kind and amount of information one has within that profession, as well as the experiences they have access to; the attractiveness of a spouse can be indicative of what a person values in the relationship. Anecdotal evidence indicates that consumers react negatively to the lack of diversity in teams, have concerns about nepotism, and draw inferences from others’ social lives. It is therefore important that business leaders and companies alike manage how they represent themselves and their social associations to their customers.
In addition to the managerial implications, each of the three essays make theoretical contributions, which are detailed in the individual essays. Collectively, this dissertation makes two broader theoretical contributions to the person perception literature. First, to the best of my knowledge, these are the first works that examine how group characteristics impact consumer perceptions. This includes scenarios in which members of the target professional’s social group are not pertinent to the service being provided or the good being consumed. Second, research on signaling focuses primarily on how people signal their values and identity through the consumption of products (e.g., Brough et al. 2016; Warren and Campbell 2014). We contribute to the identity signaling literature by demonstrating that the social associations people publicize inadvertently signal character traits, whether those be broader morality traits (Essays Two and Three) or competence traits specific to their profession (Essay One).
ESSAY ONE: How Familial Cues Impact Consumer Perceptions

Introduction

Marketers often communicate stories to enhance consumer perceptions (e.g., Aaker 2018), including sharing how they came to be in their profession. A commonly utilized cue that professionals incorporate in their narrative is their familial association within that profession. For example, on their websites, dentists often cite their mother or father being a dentist. Similarly, in a wide variety of service categories including physicians, accountants, lawyers, and plumbers, product categories such as packaged food and drinks, furniture, and wineries, and even politicians share stories about growing up in the profession (see Appendix A for several examples). In this article, we investigate how cues of shared family professions influence consumer perceptions of a target professional.

The use of “family” as a cue in marketing includes two main variations. One is promoting a business to be a “family business” such as a “Roberts Family Real Estate” or “Smith and Sons” mechanics. This approach implies either a sole ownership and/or family members as employees or partners. The second variation is to include the family profession as part of the information provided by a specific individual such as a physician proclaiming that his or her parent was also a physician. The focus of the current research is on the second variation – the role of familial cues in impacting perceptions of a focal professional and the product they represent.

Prior work has studied the impact social associations can have on person perception, but primarily on social traits (e.g., honest, tolerant, helpful, sincere, modest). For example, Sigall and Landy (1973) find that photographs of a person’s a girlfriend impacts inferences about the target’s friendliness, likeability, and energy. Govern and Greco (2002) examine how the criminal record of a person’s identical twin, brother, and cousin impact perceptions of the focal person’s
likability. Mae, McMorris, and Hendry (2004) find that people infer personality traits of a dog’s owner based on the dog’s breed (e.g., an owners of Dobermans are more aggressive, owners of Collies are more heroic, and owners of Chihuahuas are more nervous).

What has rarely been examined, however, is the impact social associations can have on perceptions of intellectual traits (e.g., intelligent, skillful). We extend this stream by examining the impact information about a person’s parents can have on perceptions of their competence. By investigating the role of the often-utilized cue of familial cues in shaping consumer perceptions of a target’s competence, we answer four questions of theoretical and practical significance: First, is a professional whose parent shares the same profession preferred to a professional who does not have such a connection? Second, what is the process underlying the preference? Third, what moderating factors impact the relationship between familial cues and consumer preferences? Fourth and finally, how do those who do not possess the familial association overcome their disadvantage?

Intuitively, familial cues should lead to positive perceptions in some categories such as plumbers, furniture makers, and mechanics as they directly imply a head start and greater acquired experience in the profession. However, we demonstrate that even in contexts where there is no direct experience and advanced technical degrees and certifications are required (e.g., architects, dentist, pharmacists), familial cues positively impact perceptions of a target professional’s competence. We show that the process underlying the positive judgments arise from inferences made about the target’s engagement in the profession, which is defined as “one’s psychological presence in or focus on role activities,” more specifically the “cognitive availability and the amount of time one spends thinking about a role” (Rothbard 2001, 656).
Our substantive contribution to the consumer behavior literature lies in investigating the role of one often-used form of storytelling in marketing, as we explain why incorporating familial cues into a narrative can be beneficial. We make two contributions to the person perception literature. First, we extend the impression formation literature by proposing that social associations not only influence inferences of social traits but can also impact perceptions of intellectual traits. Second, by identifying social associations as a cue, we extend the research on the antecedents of impressions of intellectual traits that so far been limited to investigating gender (Biernat and Kobrynowicz 1997), observed behavior (Feldstein, Dohm, and Crown 2001; Judd et al. 2005), facial features (Todorov et al. 2005; Willis and Todorov 2005), economic status (Oh, Shafir, and Todorov 2018), and educational background (Card 1999).

The remainder of this paper is organized as follows. First, we briefly the review the literatures on impression formation, social associations, and competence in consumer behavior and psychology. Building on these streams of literatures, we define and develop our theory on the role of perceived engagement in a profession. We then describe seven studies that find supporting evidence for our hypothesized process. Finally, we conclude with the theoretical and managerial implications.

**Conceptual Development**

When evaluating a target, people form inferences about their personality traits that vary on two orthogonal dimensions: social good/bad and intellectual good/bad (Asch 1946; Fiske, Cuddy, and Glick 2007). Intellectual traits are the basis of competence judgments (Fiske et al. 2007), which are paramount in transactional relationships (e.g., Kirmani et al. 2017, Wojciszke, Bazinska, and Jaworski 1998). Judgments of competence are crucial to marketers because they
impact consumers’ choice (Kirmani and Campbell 2004; Kirmani et al. 2017), purchase intentions (Wang et al. 2017), willingness to pay (Homburg, Koschate, and Hoyer 2005; Xia, Monroe, and Cox 2004), and word of mouth behavior (Kirmani et al. 2017). In a review of the literature, Xia et al. (2004) conclude that cues of competence reduce concerns of price inequality, and Homburg et al. (2005) find that customers who perceive a provider to be more competent are more satisfied and willing to pay more.

To understand how judgments of competence are formed when a target shares a profession with their parent, we first discuss the relevant literature on impression formation and then turn to the role of engagement and the role parents who share the same profession can play.

**Impression Formation**

The information used to infer characteristics of a target other can be gathered through observed physical features or facial expressions (e.g., Todorov et al. 2005), written or verbalized information (e.g., the information included in professional biographies, information people provide about themselves in verbal introductions; Card 1999; Govern and Greco 2002; Schultz 1988), environmental cues (e.g., drawing inferences based on the people surrounding a target other regardless of social association; Hebl and Mannix, 2003), and – importantly – social associations, including relatives (e.g., Govern and Greco 200), romantic partners (Sigall and Landy 1973), and even dogs (Mae et al. 2004). For example, Sigall and Landy (1973) find that romantic couples are first placed in a social category together, and then traits are inferred based on the physical appearance of the couple. Sigall and Landy (1973) find that the attractiveness of a girlfriend positively impacts inferences about the target’s friendliness, likeability, and energy. The closeness of a social association can also differentially impact inferences. For example,
Govern and Greco (2002) compare how people draw inferences about a target based on whether the target has an identical twin, brother, cousin, or no relative in prison. They find that people who have a relative in prison are viewed more negatively than people who do not. Moreover, the negative perceptions are stronger for closer social associations – such as a brother in prison – compared to a more distant social association – such as a cousin in prison – even though the target person had no criminal record. Mae et al. (2004) find that people infer personality traits of a dog’s owner based on the dog’s breed (e.g., an owner of Dobermans are more aggressive, owners of Collies are more heroic, and owners of Chihuahuas are more nervous).

Most of the research on the formation of competence impressions relies on observed behavior of or interaction with a target (e.g., Feldstein et al. 2001; Judd et al. 2005). For example, Judd et al. (2005) ask study participants to evaluate morality and competence traits of an individual after reading descriptions of 16 behaviors the individual engaged in. Feldstein et al. (2001) examine how study participants rate the competence of three males and three females after listening to the speed of their talking.

There are exceptions to forming inferences of intellectual ability in the absence of interactions. For example, Oh et al. (2018) examine how competence perceptions can be extracted from perceived socio-economic status. Oh et al. (2018) manipulate perceived socio-economic status by the apparel worn (e.g., a headshot of a well-dressed man wearing a shirt, tie, and suit jacket versus a headshot of a casually-dressed man wearing a casual shirt and no suit or tie), and find that a person of higher perceived socio-economic status is perceived to be more competent.

The work on how social associations are used to form impressions of intellectual traits is limited to two works. The first is Sigall and Landy’s (1973) study on how a romantic partner’s
physical appearance impacts perceptions of a focal person’s intelligence. Specifically, an attractive girlfriend signals that her boyfriend is intelligent. The second is Hebl and Mannix’s (2003) study of the impact that physical proximity to another person plays in perceptions of intellectual traits. Hebl and Mannix (2003) examine how the obesity of a female seen in physical proximity of a male job applicant negatively impacts perceptions of the applicant’s professional qualifications, match with the corporation, corporate image, likelihood of job perseverance, professional ethics, and earning potential. In a follow-up study among undergraduate students, Hebl and Mannix (2003) find that specifics of the relationship impact the strength of this association among male judges, but not among female judges. Specifically, male participants judged the target more harshly when the woman sitting next to the target was described as the target’s girlfriend.

We contribute to and extend the person perception literature by investigating how familial cues in the form of shared professions between a target and a parent shape perceptions of intellectual traits. We contend that a target professional who shares a profession with a parent, such as a dentist whose father or mother is also a dentist, is perceived to be a more competent dental professional because s/he is perceived to have been more engaged in that profession. We next discuss how perceptions of engagement are formed for those communicating familial cues and how these perceptions shape competence evaluations.

**Perceived Engagement**

Engagement in jobs and careers is defined “one’s psychological presence in or focus on role activities,” specifically “cognitive availability and the amount of time one spends thinking about a role” (Rothbard 2001, 656). Overall, engagement reflects the investment of an
individual’s physical, cognitive, and emotional energies into a job or career over time (Kahn 1990; Kahn 1992; Rich, Lepine, and Crawford 2010; Warr and Inceoglu 2012). Engagement is distinct from simply holding a role or job, because occupying a role does not necessitate psychological presence in the role. Kahn (1990) contends that professionals who exhibit engagement have been motivated to be physically involved in tasks, focused and attentive, and emotionally connected to others in the service of their work.

A primary antecedent of engagement is psychological safety (i.e., feeling able to invest oneself in work without fear of negative consequences; Kahn 1990; Rich et al. 2010). Psychological safety is sourced from trusting interpersonal relationships, group dynamics, and supportive management (Kahn 1990), directly impacts the motivation with which professionals approach their jobs, increases the confidence they feel when doing so (Kahn 1990), and reinforces positive emotions related to the job or task (Rothbard 2001). Feelings of psychological safety develop through interactions with others in the organization (Kahn 1990) and over the course of one’s career.

Job performance and job satisfaction are two downstream outcomes of engagement (e.g., Rich et al. 2010). Greater engagement results in increased effort (Kahn 1990; Kahn 1992; Sonnentag 2003), motivation (Locke and Latham 1990), and learning through knowledge transfers like teaching and mentorship (Swap et al. 2001). Engagement also leads to improved job performance (Salanova, Agut, and Peiro 2005), job satisfaction (Alarcon and Lyons 2011; Karanika-Murray et al. 2015; Rich et al. 2010), and greater organizational citizenship behavior (Rich et al. 2010). To illustrate both the antecedents and consequences of self-reported engagement in a single study, Rich et al. (2010) examined the mediating role of self-reported engagement in the effect of perceived organizational support on task performance among 245
firefighters. Job performance was measured via supervisor reports. The results of this study showed that organizational support positively impacted job performance, and was mediated by engagement in the job.

Engagement has been conceptualized and measured in many ways, varying in length of time (e.g., short-term engagement in a single project vs. long-term engagement in a job overall) and resources involved (e.g., psychological commitment- and mindset-based engagement vs. physical effort-based engagement vs. cognitive focus-based engagement; Rich et al. 2010). For example, Rothbard (2001) and Kahn (1990) differentiate between work attention – the amount of time one puts toward their work and thinking about their work – and work absorption – the intensity of focus toward one’s work and intrinsic motivation. Rich et al. (2010) distinguish between physical (i.e., the amount of energy and effort exerted on the job), psychological (i.e., the attitude and positive energy one brings to the job), and cognitive engagement (i.e., unyielding focus on the job). In select work, engagement has also been examined as positive reinforcement from work, such as inspiration, happiness, and energy (Bledow et al. 2011). Across these papers, as well as others, measures of engagement are adapted to fit the context in which they are being studied. For example, in order to measure work and family attention separately, Rothbard (2001) adapts his measure to be more specific to the work and family contexts respectively (e.g., “I concentrate a lot on my work” in the work attention scale vs. “I concentrate a lot on my family” in the family attention scale).

Though perceived engagement (vs. self-reported engagement) has not been measured or studied, Kahn (1990) suggests that engagement can be observed and inferred through the behavioral investment of personal energy and resources into work roles. Building on extant work, we define perceived engagement as psychological presence and the time one is perceived
to have spent thinking about a profession (Kahn 1990; Rothbard 2001). To the extent that engagement can be conceptualized as a function of investment of time (i.e., long-term engagement) and psychological resources (i.e., psychological commitment, presence, and cognitive focus), we propose that familial cues serve as an indicator of greater time and resources put toward a profession over time, thereby increasing perceived engagement. It is easy to visualize that sharing a profession with one’s parent increases psychological safety and perceived engagement. For example, an aspiring physician whose parent is also a physician is perceived to be introduced to the profession earlier in their life, interact with and find support from other physicians and medical practices more frequently, receive guidance and mentorship, understand the requirements of the profession better, and stay involved in medical activities. In other professions such as carpentry or plumbing, relevant skills may also be developed through engagement in job-related tasks. Because people with shared family professions are introduced to the profession earlier in their lives, they also have more time to learn about, receive mentorship in, and nurture their enthusiasm for that profession, all of which create more opportunities for engagement. Because opportunities for engagement are perceived as more numerous when one shares a profession with their parent, perceived engagement in a career or job will be a direct consequence of familial cues. We next detail why perceived engagement is positively associated with perceived competence.

**Engagement and Competence**

A large body of findings demonstrate the link between engagement and objective performance, both in terms of self-perceptions of competence and evaluated or measured job performance. Kahn (1990) documents how engagement in meaningful tasks, especially those that
are diverse in complexity, increase self-perceptions of competence. For instance, complex, difficult, and unfamiliar tasks kept architects interested in engaging in the task for longer periods of time, while unexpected conditions and problems made a difficult class feel more rewarding for a scuba instructor (Kahn 1990). In both cases, people who engaged in and completed tasks in adverse conditions felt they were more competent. Another study found that firefighters who felt more engaged in their jobs were also rated as better performers by their supervisors (Rich et al. 2010).

Research in commitment similarly finds that greater engagement in the form of increased deliberative practice and seeking out learning opportunities improves task performance (Ericsson, Krampe and Tesch-Romer 1993; Eskreis-Winkler et al. 2016; Krampe and Ericsson 1996; Siders, George, and Dharwadkar 2001; Wright and Bonett 2002). For example, Krampe and Ericsson (1996) found that more hours spent in deliberative practice predicted pianists’ increased competence and improved task performance in later years. Siders et al. (2001) found that salespeople who reported higher commitment to the organization outperformed other salespeople in terms of sales volume.

We propose that greater perceived engagement will increase perceptions of a target professional’s competence, just as self-reported engagement is associated with improved job performance, and that familial cues are indicators of greater perceived engagement in a profession. That is, we expect perceived engagement to mediate the impact of familial cues on the perceived competence of a service provider. We propose that familial cues will increase perceived engagement in a job or career because they suggest greater psychological safety within a career. Parents may be perceived to have provided interpersonal support, greater interactions with job-related tasks and a professional network, and mentorship. However, the availability of
these resources is not enough to increase competence. These resources provide an opportunity for engagement which, in turn, can increase competence. That is, consumers may expect a professional using a familial cue in descriptions of themselves to have access to more resources and opportunities and take advantage of those resources and opportunities to learn more, thereby increasing perceived competence. Further, as competence judgments are positively associated with purchase intentions (e.g., Wang et al. 2017), choice (Kirmani et al. 2017), and expected quality (Parasuraman et al. 1988), familial cues are likely to increase positive perceptions, and this effect will be mediated by perceived engagement of a target professional in his or her profession.

Measures of Perceived Engagement

Existing measures of engagement vary in the contexts and dimensions to which they apply, but they do not measure perceived engagement of another over an extended period of time, as we theorize to happen among people using familial cues. Rothbard’s (2001) work attention measure comes closest to the phenomena we seek to study for three reasons. First, Rothbard (2001) incorporates the length of time in the theorization and measurement of work attention. Similarly, we theorize that engagement is perceived as developing long-term, typically over the course of many years. We also theorize that familial cues signal engagement because they suggest that the target professional had access to more professional opportunities and networks from an early age. Second, Rothbard (2001) links engagement (work attention) and competence (performance in work and family roles). Our work similarly focuses on understanding how consumers form perceptions of a service provider’s competence. Third, Rothbard (2001) adapts the work attention scale to two contexts – professional life and family
life. In line with measures of long-term commitment (e.g., Duckworth 2016; Duckworth et al. 2007), as well as Rothbard’s (2001) own adaptation of the work attention scale to fit a context of interest, we adapt Rothbard’s (2001) work attention measure to reflect the perceived long-term focus and dedication we theorize comes with familial cues.

**Overview of Studies**

We test our theorizing in seven studies. Study 1 is a field experiment that examines the role of familial cues in consumer choice. Study 2 examines the mediating role of perceived engagement in consumers’ real choice of food products. Study 3 tests the serially mediating role of mentorship and perceived engagement in the relationship between familial cues and perceived competence, and rules out extrinsic motivation, intrinsic motivation, and natural ability/talent as alternative explanations in the healthcare industry. In study 4, we test mediation through moderation, by directly manipulating perceived engagement among architects and examining the effect of familial cues and stated long-term engagement on perceived competence. We also examine the moderating role of industry and task characteristics on the effect of familial cues on competence perceptions in Study 5. Specifically, we examine the role of task simplicity among pharmacists, and examine how familial cues may impact skills associated with competence in addition to personality traits associated with competence. In all our studies (except studies 1 and 2, which were field studies examining real choice), we aimed for a sample size of approximately 55 in each cell. In studies 2 and 3, to rule out the potential impact of order effects, the dependent variable and mediator questions were presented in randomized order. In both studies, the order of the questions did not play a significant role and therefore are not discussed further or included in analyses.
Across studies, our inclusion criteria was limited to U.S. residents above the age of 18 who had not previously participated in related studies and completed the study in its entirety without failing the attention check required to enter the survey. In all studies, effect sizes reflect the inclusion of all variables and interactions included in the analyses.

**Study 1: Chocolatier Field Experiment**

The primary objective of this study was to examine whether shared family profession impacts consumer choice. To test our theory, we used two real family-owned and operated chocolate companies whose chocolate is comparable in terms of ingredients, weight, and price – Ritter Sport and Guittard Chocolate Company.

**Design and Procedure**

Participants in this experiment were recruited at a small local school located in the south-west US during a three-hour window. Two participants claimed to not each chocolate and were excluded from the study, resulting in a final sample of 51 people (62.7% female, $M_{\text{Age}} = 40.82$, $SD = 9.47$). Participants were asked to complete a short survey while they were waiting to pick up students from class. The survey informed the participants that the authors were working with two gourmet chocolate companies to understand how consumers make decisions. The CEOs of those companies who made the chocolate had provided descriptions of their milk chocolate bars. In order to gather unbiased opinions, the names of the companies and chocolatiers/CEOs omitted from the descriptions. Participants saw the chocolate prior to completing the survey but were not told which description matched which chocolate.
Each participant was asked to read two short descriptions of chocolate, one from each chocolatier (see Appendix B for all counterbalanced conditions). The descriptions were adapted from the companies’ websites and the chocolate wrappers. To manipulate the familial cue, only one of the two descriptions specified that 1) the company was family owned and that 2) the chocolatier and CEO was a member of the family. The order in which the companies were presented and which chocolatier used a familial cue were counterbalanced. After reading the descriptions, participants indicated which chocolate they preferred, their gender, and their age. As thanks for their participation, participants received the chocolate they selected. Whether participants chose the chocolate made by the company specified as family-owned and operated was the dependent variable.

**Results**

We expected to find that participants would more often select a chocolate that was stated to be produced by a family-associated chocolatier. As expected, 66.7% of participants selected the chocolate produced by family-associated chocolatier (Chi-squared = 73.46, p = .017), demonstrating that consumers prefer and choose products made by people whose families have a history of producing that product. There was no effect of counterbalanced condition on choice (p = .468).

**Discussion**

Study 1 demonstrates that familial cues have a significant impact on consumer choice. The familial cue leveraged in study 1 – working alongside the family in a family business versus
specifying any one member of the family – is a common familial cue. Additionally, this cue is more conservative than familial cues that specify a parent and reinforce closer social association.

In line with Govern and Greco (2002), more distant social associations may have a more limited impact on perception formation than closer social associations, such as a parent and child. In our next studies, we only seek to empirically validate our theoretical model first by focusing on an individual rather than a business to eliminate any potential halo effects of family businesses and the competence or quality of the business as a whole. We also examine different formats in which familial cues are presented to consumers, such as food product labels (study 2) and professional biographies with headshots (studies 3-5), and establish the robustness of the familial cue effect by altering both the gender of the target professional and the parent. Finally, we examine the impact of familial cues in a range of industries where familial cues that mention parents are more common, such as packaged food products, healthcare, and building/architecture, and therefore can be empirically tested in a wider variety of professions.

**Study 2: Real Choice and Mediation**

To extend the findings of study 1, where we found evidence for greater consumer choice for products among companies that incorporated a familial cue in their description, this study examines the mediating role of perceived engagement in perceptions of product quality, perceived competence of the producer, and product choice related to a single target professional.

**Design and Procedure**

This study followed a 2-cell (family vs. control) between-subjects design. Of the 162 complete responses collected, 11 were excluded as they fit one or more of the following
exclusion criteria: outliers (−/+ 3 SD from the mean) in terms of time taken to complete the survey or any one question page, demonstrating a lack of attention, multiple entries into the survey, and accessing the study from a non-U.S. location. We followed the same exclusion criteria in all studies. The final sample for this study was comprised of 151 U.S. residents recruited on MTurk (45% female, $M_{\text{age}} = 38.95$, $SD = 12.27$). Participants were asked to imagine that while shopping for salsa for a party over the weekend, the participant saw a jar of salsa that caught their eye. Participants were then shown pictures of the jar of salsa and the description on the back of the jar, which included a note from the producer. The familial cue was manipulated through the description on the back of the jar – in the family condition, the note from the creator of the salsa stated that the creator’s parent was a chef and restaurateur who inspired the creator to pursue a culinary degree. In both the family and control conditions, the creator specified that the recipe was of her own making (see Appendix C). Participants rated the expected quality of the salsa on two 7-point bipolar scales (bad/good, low quality/high quality; alpha = .90), and then completed the choice measure.

The choice measure was adapted from Allard, Dunn, and White (forthcoming). In the measure, participants were told they would be given three raffle tickets that they could allocate between $25 worth of chips and salsa from the creator of the salsa they just saw or a $15 gift card that could be “redeemed at a limited catalog of stores including Walmart and Target.” The main dependent variable was the number of tickets (out of 3) allocated to $25 worth of chips and salsa. That is, participants could choose one of four options: allocate 0 tickets to the salsa raffle and 3 tickets to the gift card raffle (coded as 0); allocate 1 ticket to the salsa raffle and 2 tickets to the gift card raffle (coded as 1); allocate 2 tickets to the salsa raffle and 1 ticket to the gift card raffle (coded as 2); allocate 3 tickets to the salsa raffle and 0 tickets to the gift card raffle (coded
as 3). The dependent variable therefore takes integer values between 0 and 3, inclusive of endpoints, and is analyzed as a continuous variable ranging from 0 to 3.

Participants next evaluated the chef’s competence on a four-item measure (skilled, knowledgeable, intelligent, competent; 1 = not at all to 7 = very; alpha = .91; Kirmani et al. 2017) and completed a measure of perceived engagement. Perceived engagement was measured using an adaptation of Rothbard’s (2001) four-item work attention scale. As discussed earlier, Rothbard’s (2001) definition and measure of work attention is the closest to our theorizing and conceptualization of perceived engagement. The adapted items were modified to incorporate the target professional’s name and profession: Elizabeth Ortega has spent a lot of time thinking about a career as a chef; Elizabeth Ortega has focused a great deal of attention on a career as a chef; Elizabeth Ortega has concentrated a lot on a career as a chef; Elizabeth Ortega has paid a lot of attention to a career as a chef. The items were measured on a 7-point scale (1 = not at all to 7 = very much) and demonstrated high reliability (alpha = .93).

Participants then indicated how closely related they perceived the creator of the salsa to be to other chefs as a manipulation check (1 = not at all related to 7 = very closely related). Participants also indicated how strongly they agreed that the chef of the salsa created her own recipe (1 = strongly disagree to 7 = strongly agree) to rule out any potential impact of family recipes. Finally, participants provided demographic information.

**Results**

**Manipulation Check: Familial Cue.** Participants in the family condition perceived the creator of the salsa to be more closely related to other chefs than participants in the control
condition ($M_F = 5.57$, $SD = 1.33$ vs. $M_C = 5.14$, $SD = 1.04$; $F(1, 149) = 4.87$, $p = .029$, $\eta^2 = .032$, Cohen’s $d = .364$).

**Manipulation Check: Original Recipe.** There was no significant difference between family and control conditions on perceptions of the salsa being the creator’s own recipe ($M_F = 6.06$, $SD = 1.24$ vs. $M_C = 5.92$, $SD = 1.06$; $F(1, 149) = .603$, $p = .439$, $\eta^2 = .004$, Cohen’s $d = .127$), thereby ruling out family recipes as an alternative explanation.

**Dependent Variable: Perceived Quality, Choice, and Perceived Competence.**

Participants in the family condition rated the salsa to be of higher quality ($M_F = 6.20$, $SD = .75$ vs. $M_C = 5.88$, $SD = 1.01$; $F(1, 149) = 4.99$, $p = .027$, $\eta^2 = .032$, Cohen’s $d = .364$) and allocated more raffle tickets (values ranging continuously from 0 to 3) to the basket containing salsa (vs. a gift card; $M_F = 1.24$, $SD = 1.13$ vs. $M_C = .88$, $SD = .98$; $F(1, 149) = 4.46$, $p = .036$, $\eta^2 = .029$, Cohen’s $d = .346$). Finally, participants in the family condition rated the creator to have greater competence as a chef ($M_F = 6.24$, $SD = .67$ vs. $M_C = 5.78$, $SD = 1.04$; $F(1, 149) = 10.53$, $p = .001$, $\eta^2 = .066$, Cohen’s $d = .532$).

**Mediation: Perceived Engagement.** In line with our expectations, participants in the family condition perceived the creator of salsa to have greater engagement in her profession ($M_F = 6.21$, $SD = .72$ vs. $M_C = 5.79$, $SD = 1.09$; $F(1, 149) = 7.81$, $p = .006$, $\eta^2 = .050$, Cohen’s $d = .459$). Additionally, we expected perceived engagement to mediate the effect of familial cue on perceived product quality, product quality, and perceived competence. To test this hypothesis, we conducted a mediation analysis using bootstrapping with repeated extraction of 5,000 samples (Hayes 2013, Model 4). This model included family condition as the independent variable (1 = familial cue, 0 = control), perceived engagement as the mediator, product quality, product quality, and perceived competence as the dependent variables. Results confirmed
mediation through perceived engagement on perceived product quality (95% CI: [.047, .366]), choice (95% CI: [.012, .190]), and perceived competence (95% CI: [.075, .571]). See table 1 for a summary.

Table 1. Summary of Mediation Analyses, Study 2, Essay One

<table>
<thead>
<tr>
<th></th>
<th>Perceived product quality</th>
<th>Product choice</th>
<th>Perceived competence</th>
<th>Perceived engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct effect of familial cue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Familial cue</td>
<td>.32 (.14)*</td>
<td>.37 (.17)*</td>
<td>.46 (.14)**</td>
<td>.42 (.15)**</td>
</tr>
<tr>
<td><strong>Indirect effect of familial cue through perceived engagement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Familial cue</td>
<td>.13 (.13)</td>
<td>.28 (.18)</td>
<td>.16 (.09)</td>
<td></td>
</tr>
<tr>
<td>Perceived engagement</td>
<td>.45 (.07)***</td>
<td>.21 (.09)*</td>
<td>.72 (.05)***</td>
<td></td>
</tr>
<tr>
<td>95% CI index of mediation</td>
<td>[.05, .37]</td>
<td>[.01, .19]</td>
<td>[.08, .57]</td>
<td></td>
</tr>
</tbody>
</table>

Note: For regression and mediation analyses, standard errors are in parentheses next to coefficients; *** p < .001; ** p < .01, * p < .05

**Discussion**

So far, we have demonstrated the positive impact familial cues have on consumer perceptions and choice in multiple scenarios and among different professions. This study builds on study 1 by empirically validating the mediating role of perceived engagement on consequential consumer choice as a function of familial cues. Additionally, by focusing on an individual rather than a business in study 2, we eliminate any potential halo effects of family businesses and the competence or quality of the business as a whole. To summarize, studies 1 and 2 vary in three important ways: the dependent variables (choice in both studies, and perceived competence and quality in study 2); the specificity of familial cues (overall family in study 1 and mother in study 2); proximity of target professional (CEO working in family-owned business in study 1 and chef with an independent line of sauces in study 2). Taken together, these
studies demonstrate that familial cues can differ on multiple dimensions and still similarly impact consumer perceptions and choice.

One question that arises when considering the role familial cues play in perceptions of competence is the role that parents play in the target professional’s development. It is possible that familial cues communicate greater guidance and mentorship from a parent. Theoretically, mentorship can contribute to psychological support within a career or profession (see Allen, Eby, and Lentz 2004 for a review; Colarelli and Bishop 1990; Ragins, Cotton, and Miller 2000; Scandura 1992). Mentorship is defined as “a relationship between a younger adult and an older, more experienced adult [who] helps the younger individual learn to navigate…the world of work” (Kram 1985, 2). Scandura (1992) documents that the two primary functions of mentors are to provide psychological support and vocational support (e.g., career coaching), of which the former contributes to engagement. Research in mentorship also demonstrates that mentorship can improve engagement and learning through interactions with and transfer of knowledge from someone more experienced (e.g., a parent in a profession) to someone less experienced in the profession (e.g., a child aspiring to the profession; see Swap et al. 2001 for a meta-analytic review). This transfer of knowledge can take place through shared stories (Collins 2013; Swap et al. 2001), work-related tasks (Swap et al. 2001), and teaching (Swap et al. 2001), even without full-scale immersion into the workplace or culture (Collins et al. 2006) as may be prohibitive for a child uncertified in a profession. Though mentorships can be formal or informal, they require time and contact between the mentor and mentee, and contribute to interpersonal relationships and psychosocial support within a professional network (see Ragins et al. 2000 for a meta-analytic review).
In our next study, we examine the role that mentorship plays in the association of familial cues and perceptions of engagement and competence. Specifically, we test whether perceived mentorship and perceived engagement serially mediate the impact of familial cues on perceived competence.

**Study 3: Mediation**

In study 3, we test perceptions of dentists, a profession in which sharing a profession with a parent and use of familial cues in professional biographies is common. We chose to test the effects among dentists to understand the role of familial cues in service contexts where standardized certifications and degrees are required. Because familial cues are frequently mentioned in dentist profiles, the stimuli feels more realistic for participants. Further, we test a wider variety of dependent variables related to professional competence (e.g., competence as measured in study 2, as well as the empathy, assurance, and reliability dimensions of service quality and personality), the hypothesized mediating roles of perceived mentorship and perceived engagement (figure 1), as well as alternative explanations (i.e., intrinsic motivation, extrinsic motivation, and natural gifts/talents).

*Figure 1. Predicted Serial Mediation Pathway, Essay One*
Design and Procedure

This study followed a 2-cell (family vs. control) between-subjects design. Of the 249 completed surveys collected, 23 were excluded in line with our exclusion criteria. The final sample was comprised of 226 U.S. residents recruited on MTurk (35.8% female, $M_{age} = 37.82$, $SD = 10.58$). Participants were asked to imagine that they had been having some pain in their tooth and wanted to get a second opinion from a dentist (different from their usual dentist). Participants were told that they would be shown one profile of a dentist, and would need to answer questions about the dentist. In the family condition, the dentist’s biography stated that the dentist’s father, who is also a dentist, and his interest in dentistry inspired him to pursue dentistry. In the control condition, the familial cue was not mentioned (see Appendix D for detailed stimuli). After viewing and reading the dentist’s profile, participants responded to measures of dependent variables, mediators, and alternative explanations.

The dependent variables included one behavioral intention variable and six competence variables. Behavioral intentions were measured using three 7-point bipolar scales related to purchase likelihood (not at all inclined, willing, likely/very inclined, willing, likely; alpha = .94). Two of the competence variables we measured were consistent with Study 2: expected quality (alpha = .90) and competence (alpha = .93).
The four added measures of competence are in line with prior research, which has operationalized competence in terms of years of experience (e.g., Kor 2003; McGee, Dowling, and Meggison 1995) and three dimensions of service quality – empathy, assurance, and reliability (e.g., Lee et al. 2000). To measure perceived years of experience, we asked participants to indicate how many years of dentistry experience they think the dentist has. To measure empathy, assurance, and reliability, we adapted the Servqual measure Lee et al. (2000) used to measure service quality among healthcare professionals. Empathy was measured using five items (alpha = .87), assurance was measured using five items (alpha = .83), and reliability was measured using six items (alpha = .92). See Appendix E for all measures.

There were two mediators measured: perceived engagement and perceived mentorship. We measured both mediators to test their role in the relationship between familial cues and perceived competence, as well as to better understand how one impacts the other. Our theory suggests that familial cues increase perceived mentorship, which in turn contributes to perceived engagement. Measuring both mediators allows us to test this pattern. Perceived engagement was measured using the same scale four-item as in study 2 (alpha = .90). Perceived mentorship was measured using an adaptation of Lyness’s (2000) four-item lack of mentoring measure. The items were reversed from the original scale, and written as: Dr. Benjamin Morgan has received mentoring in dentistry, Dr. Benjamin Morgan had senior dentists facilitate his career progress; Dr. Benjamin Morgan has had access to the right people (or knowing the right people); Dr. Benjamin Morgan has received meaningful feedback about his strengths and weaknesses. The items were measured on a 7-point scale (1 = not at all to 7 = very much) and demonstrated high reliability (alpha = .81).
In terms of alternative explanations, we tested the role of intrinsic motivation, extrinsic motivation, and natural gifts/abilities. Intrinsic motivation was measured using a single item – Dr. Benjamin Morgan chose to become a dentist – as was extrinsic motivation – Dr. Benjamin Morgan was forced to become a dentist. Natural gift and abilities were measured using two items: Dr. Benjamin Morgan has a natural gift for dentistry, Dr. Benjamin Morgan has a natural ability to be a good dentist (alpha = .91). Participants indicated the extent to which they thought these statements were true of the dentist on a 7-point scale (1 = not at all to 7 = very much).

Finally, as a manipulation check of familial cue, participants indicated how closely related the dentist shown was to other dentists (1 = not at all to 7 = very much) before providing demographic information.

Results

**Manipulation Check: Familial Cue.** Participants in the family condition perceived the dentist to be more closely related to other dentists than participants in the control condition ($M_F = 5.96$, $SD = .88$ vs. $M_C = 5.05$, $SD = 1.09$; $F(1, 224) = 48.49, p < .001$, $\eta^2 = .178$, Cohen’s $d = .931$).

**Dependent Variables: Purchase Intent, Expected Quality, and Competence.** Participants in the family condition demonstrated greater purchase intent, expected quality, perceived competence, perceived empathy, and perceived reliability of the dentist shown than participants in the control condition (see table 2). The effect of family condition on perceived assurance was marginal. It is possible that this effect was not significant because the items in the scale include the ability to explain the cost and procedure, and maintain patient confidentiality, which may be basic requirements of the job that cannot legally differ between professionals.
Table 2. Summary of Mean Comparison, Study 3, Essay One

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Non family Mean</th>
<th>SD</th>
<th>Family Mean</th>
<th>SD</th>
<th>F(1, 224)</th>
<th>p</th>
<th>$\eta^2$</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase intent</td>
<td>5.41</td>
<td>1.27</td>
<td>5.75</td>
<td>1.01</td>
<td>5.00</td>
<td>.026</td>
<td>.022</td>
<td>.300</td>
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<tr>
<td>Expected quality</td>
<td>5.79</td>
<td>.98</td>
<td>6.06</td>
<td>.76</td>
<td>5.71</td>
<td>.018</td>
<td>.025</td>
<td>.320</td>
</tr>
<tr>
<td>Competence</td>
<td>5.71</td>
<td>.89</td>
<td>6.00</td>
<td>.75</td>
<td>7.03</td>
<td>.009</td>
<td>.030</td>
<td>.352</td>
</tr>
<tr>
<td>Years of experience</td>
<td>8.67</td>
<td>3.92</td>
<td>9.91</td>
<td>4.92</td>
<td>4.32</td>
<td>.039</td>
<td>.019</td>
<td>.278</td>
</tr>
<tr>
<td>Empathy</td>
<td>5.56</td>
<td>.82</td>
<td>5.78</td>
<td>.81</td>
<td>4.01</td>
<td>.046</td>
<td>.018</td>
<td>.271</td>
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<td>Assurance</td>
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<td>.82</td>
<td>5.91</td>
<td>.73</td>
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<tr>
<td>Reliability</td>
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<td>.78</td>
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<td>.006</td>
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<tr>
<td>Mentorship</td>
<td>5.42</td>
<td>.91</td>
<td>6.02</td>
<td>.82</td>
<td>27.38</td>
<td>.000</td>
<td>.109</td>
<td>.700</td>
</tr>
<tr>
<td>Engagement</td>
<td>5.87</td>
<td>.91</td>
<td>6.17</td>
<td>.77</td>
<td>7.82</td>
<td>.006</td>
<td>.034</td>
<td>.375</td>
</tr>
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</table>

Table 3. Summary of Serial Mediation Analyses, Study 3, Essay One

**Serially mediated effect of familial cue**

<table>
<thead>
<tr>
<th>Direct effect of familial cue</th>
<th>PI</th>
<th>EQ</th>
<th>PC</th>
<th>PEXP</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Familial cue</td>
<td>.34 (.15)*</td>
<td>.28 (.12)*</td>
<td>.29 (.11)**</td>
<td>1.24 (.60)*</td>
<td>.22 (.11)*</td>
</tr>
<tr>
<td>Assurance</td>
<td>.19 (.10)^</td>
<td>.31 (.11)**</td>
<td>.60 (.12)***</td>
<td>.31 (.11)**</td>
<td></td>
</tr>
</tbody>
</table>

**Mediating role of perceived mentorship**

<table>
<thead>
<tr>
<th>Mediating role of perceived engagement</th>
<th>PI</th>
<th>EQ</th>
<th>PC</th>
<th>PEXP</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Familial cue</td>
<td>.14 (.16)</td>
<td>.10 (.12)</td>
<td>.05 (.11)</td>
<td>1.19 (.64)^</td>
<td>-.01 (.11)</td>
</tr>
<tr>
<td>PM</td>
<td>.32 (.09)**</td>
<td>.30 (.06)**</td>
<td>.39 (.06)***</td>
<td>.09 (.34)</td>
<td>.37 (.06)***</td>
</tr>
<tr>
<td>Assurance</td>
<td>-.05 (.10)</td>
<td>.06 (.11)</td>
<td>.08 (.11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PM</td>
<td>.40 (.05)**</td>
<td>.42 (.06)***</td>
<td>.39 (.06)***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Serially mediating role of perceived mentorship and perceived engagement**

Direct effect of PM on PE: .40 (.06)***

<table>
<thead>
<tr>
<th>PI</th>
<th>EQ</th>
<th>PC</th>
<th>PEXP</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Familial cue</td>
<td>.10 (.14)</td>
<td>.06 (.10)</td>
<td>.01 (.09)</td>
<td>1.10 (.62)^</td>
</tr>
</tbody>
</table>
Assurance  Reliability
Familial cue  -.09 (.08)  .02 (.09)
PM  .23 (.05)***  .22 (.06)***
PE  .46 (.05)***  .50 (.06)***
95% CI  [.05, .18]  [.06, .20]

Note: For regression and mediation analyses, standard errors are in parentheses next to coefficients; PI = Purchase intent; EQ = Expected quality; PC = Perceived competence; PEXP = Perceived experience; PM = Perceived mentorship; PE = Perceived engagement; 95% CI = 95% confidence interval of the index of mediation; *** p < .001; ** p < .01, * p < .05.

**Serial Mediation.** We expected perceived mentorship and perceived engagement to serially mediate the effect of familial cue on purchase intent and all six measures of perceived competence. To test this hypothesis, we conducted a mediation analysis using bootstrapping with repeated extraction of 5,000 samples (Hayes 2013, Model 6). This model included family condition as the independent variable (1 = familial cue, 0 = control), perceived mentorship as the first mediator, perceived engagement as the second mediator, with purchase intent and measures of perceived competence as the dependent variables. Results confirmed serial mediation through our proposed pathway (familial cue → perceived mentorship → perceived engagement → competence/purchase intent; see figure 1) on purchase intent and each of the six measure of competence (see table 3). To confirm the order of mediation, we tested the reversed pathway (i.e., familial cue → perceived engagement → perceived mentorship → dependent variables) and did not find support for a reversed path.

**Discussion**

This study demonstrates that familial cues increase perceptions of mentorship and engagement in that profession over time. That is, this study confirms that mentorship is one
perceived advantage of familial cues, and that mentorship contributes to engagement. Prior to this study, the link between perceived mentorship and perceived engagement was not empirically tested. Furthermore, this study confirms that perceived mentorship and perceived engagement mediate the impact of familial cues on different dimensions of competence (i.e., expected quality, competence traits, years of experience, empathy, assurance, reliability) as well as consumer choice (i.e., purchase intentions). One question that still remains is whether there is a way for professionals without any such parent or familial cue to compete with their counterparts that do have parent who shares their profession. Our theory suggests that indicators of greater engagement, even among those who do not have a parent in the same profession, may cue greater competence. We test this in our next study by leveraging narratives in professional biographies to increase perceptions of engagement in a profession.

Study 4: Mediation through Moderation

This study identifies one way in which professionals who do not share a profession with their parent can communicate the same level of engagement, and consequently an equivalent level of competence, to consumers. Specially, we test whether stating that one has demonstrated interest in and has engaged in tasks related to a profession over time can cue similar levels of perceived engagement as familial cues.

Design and Procedure

This study followed a 2 (family vs. control) x 2 (high engagement vs. control) between-subjects design. Of the 225 completed responses, 14 were excluded in line with our exclusion criteria. The final sample comprised of 211 U.S. residents recruited on MTurk (39.3% female,
Participants were asked to imagine that they came across a profile for an architect and builder online. Participants were asked only to read the profile on a static, non-interactive landing page of the architect/builder’s professional website and evaluate the architect/builder’s competence and engagement in the profession. Participants then saw one of four architect/builders’ profiles (see Appendix F). Similar to our other studies, the familial cue was manipulated through mentions of the target professional being inspired by his father to pursue a career as an architect/builder in the family condition. There was no such mention in the control condition. To manipulate engagement, the profiles of the target professionals in the high-engagement condition stated that the target professional had been interested in architecture and building from a very young age, had spent his free time as a child building miniature homes, and spent summers in high school working alongside builders at construction sites and at a local architecture firm.

After viewing the profile, participants evaluated perceived competence (alpha = .91) and engagement (alpha = .92) of the architect/builder using the same measures as in studies 2 and 3. Participants then indicated how closely related they perceived the architect/builder to be to other builders/architects as a manipulation check (1 = not at all related to 7 = very closely related). Finally, participants provided demographic information.

Results

**Manipulation Check: Familial Cue.** Participants in the parent condition perceived the builder/architect to be more closely related to other builders/architects than participants in the control condition ($M_F = 5.86, SD = 1.06$ vs. $M_C = 5.36, SD = 1.15$; $F(1, 207) = 10.57, p = .001$, partial $\eta^2 = .049$, Cohen’s $d = .454$). There was no significant effect of engagement condition nor
interaction between family and engagement conditions ($p$'s > .12, partial $\eta^2 < .011$, Cohen’s $d < .211$).

**Manipulation Check: Engagement.** There was a significant impact of engagement condition ($F(1, 207) = 16.24, p < .001$, partial $\eta^2 = .073$, Cohen’s $d = .561$) on perceived engagement, confirming that our manipulation was successful. There was also a significant two-way interaction between family condition and engagement condition ($F(1, 207) = 7.35, p = .007$, partial $\eta^2 = .034$, Cohen’s $d = .375$). In line with our theorizing, there was a significant impact of family profession on perceived engagement in the control-engagement condition ($M_F = 6.32, SD = .80$ vs. $M_C = 5.93, SD = .87; F(1, 207) = 7.40, p = .007$, partial $\eta^2 = .035$, Cohen’s $d = .381$), but was attenuated in the high-engagement condition ($M_F = 6.46, SD = .72$ vs. $M_C = 6.63, SD = .58; F(1, 207) = 1.30, p = .255$, partial $\eta^2 = .006$, Cohen’s $d = .155$).

**Dependent Variable: Perceived Quality.** In the control-engagement condition (i.e., no manipulation of engagement), participants in the family condition perceived the architect/builder to be of marginally higher quality ($M_F = 6.23, SD = .79$ vs. $M_C = 5.94, SD = .90; F(1, 207) = 3.74, p = .056$, partial $\eta^2 = .018$, Cohen’s $d = .271$). In the high-engagement condition, no difference in perceived quality was found between the family and control conditions ($M_F = 6.28, SD = .72$ vs. $M_C = 6.21, SD = .63; F(1, 207) = .20, p = .653$, partial $\eta^2 = .001$, Cohen’s $d = .063$). Additionally, participants in the non-family, high-engagement condition perceived the architect/builder to be of marginally higher quality than participants in the non-family, control-engagement condition ($F(1, 207) = 3.21, p = .075$, partial $\eta^2 = .015$, Cohen’s $d = .063$). These results provide directional support for our theory, even though a $2 \times 2$ ANOVA on perceived quality showed a non-significant two-way interaction between family condition and engagement
condition \( (F(1, 207) = 1.03, p = .312, \text{partial } \eta^2 = .005, \text{Cohen’s } d = .142) \), a non-significant effect of engagement \( (F(1, 207) = 2.29, p = .132, \text{partial } \eta^2 = .011, \text{Cohen’s } d = .063) \), and a marginally significant effect of family condition \( (F(1, 207) = 2.76, p = .098, \text{partial } \eta^2 = .013, \text{Cohen’s } d = .230) \). See figure 2.

**Dependent Variable: Perceived Competence.** A \( 2 \times 2 \) ANOVA on perceived competence showed a significant two-way interaction between family condition and engagement condition \( (F(1, 207) = 4.40, p = .037, \text{partial } \eta^2 = .021, \text{Cohen’s } d = .293) \) and a significant effect of engagement condition \( (F(1, 207) = 5.25, p = .023, \text{partial } \eta^2 = .015, \text{Cohen’s } d = .247) \). In the control-engagement condition, participants in the family condition perceived the architect/builder to be more competent \( (M_F = 6.12, \text{SD} = .78 \text{ vs. } M_C = 5.80, \text{SD} = .86; F(1, 207) = 5.04, p = .026, \text{partial } \eta^2 = .024, \text{Cohen’s } d = .314) \). In the high-engagement condition, no difference in perceived competence was found between the family and non-family conditions \( (M_F = 6.14, \text{SD} = .69 \text{ vs. } M_C = 6.25, \text{SD} = .61; F(1, 207) = .56, p = .456, \text{partial } \eta^2 = .003, \text{Cohen’s } d = .110) \). Additionally, participants in the non-family, high-engagement condition perceived the architect/builder to be more competent than participants in the non-family, control-engagement condition \( (F(1, 207) = 9.69, p = .002, \text{partial } \eta^2 = .045, \text{Cohen’s } d = .434) \). See Figure 3.
**Moderated Mediation.** We expected perceived engagement to mediate the effect of familial cues on perceived competence, but not in the high-engagement condition. To test this
hypothesis, we conducted a mediation analysis using bootstrapping with repeated extraction of 5,000 samples (Hayes 2013, Model 8). This model included family condition as the independent variable (1 = familial cue, 0 = control), perceived engagement as the mediator, engagement condition as the moderator (1 = high engagement, 0 = control), and perceived quality and competence as the dependent variables.

Results indicated that the indirect effect of familial cue on perceived quality through perceived engagement differed in the high-engagement and control-engagement conditions (95% CI: [-.60, -.10]). Perceived engagement mediated the impact of familial cue on perceived quality in the control-engagement condition (95% CI: [.05, .42]), but not in the high-engagement condition (95% CI: [-.27, .05]). This pattern of results replicated for the indirect effect of familial cue on perceived competence (95% CI: [-.68, -.11]). That is, perceived engagement mediated the impact of the familial cue on perceived competence in the control-engagement condition (95% CI: [.06, .50]), but not in the high-engagement condition (95% CI: [-.30, .06]). See table 4.

<table>
<thead>
<tr>
<th>Table 4. Summary of Moderated Mediation Analyses, Study 4, Essay One</th>
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<tr>
<td><strong>Mediating role of perceived engagement on perceived quality</strong></td>
</tr>
<tr>
<td><strong>Direct effect of familial cue on perceived quality</strong></td>
</tr>
<tr>
<td>familial cue</td>
</tr>
<tr>
<td>Control engagement condition</td>
</tr>
<tr>
<td>High engagement condition</td>
</tr>
<tr>
<td>.28 (.10)^</td>
</tr>
<tr>
<td>.07 (.13)</td>
</tr>
</tbody>
</table>

| **Indirect effect of familial cue through perceived engagement** |
| familial cue                                                 |
| Control engagement condition                                 |
| High engagement condition                                     |
| .04 (.13)                                                     |
| .16 (.12)                                                     |
| Perceived engagement                                          |
| .62 (.08)^***                                                 |
| .54 (.09)^***                                                 |
| 95% CI index of mediation                                     |
| [.05, .42]                                                    |
| [-.27, .05]                                                   |

| **Mediating role of perceived engagement on perceived competence** |
| **Direct effect of familial cue on perceived competence**        |
| familial cue                                                 |
| Control engagement condition                                 |
| High engagement condition                                     |
| .32 (.16)^*                                                   |
| -.11 (.13)                                                    |

<p>| <strong>Indirect effect of familial cue through perceived engagement</strong> |
| familial cue                                                 |
| Control engagement condition                                 |
| High engagement condition                                     |
| .05 (.12)                                                     |
| .01 (.10)                                                     |</p>
<table>
<thead>
<tr>
<th>Perceived engagement</th>
<th>.69 (.07)***</th>
<th>.69 (.07)***</th>
</tr>
</thead>
<tbody>
<tr>
<td>95% CI index of mediation</td>
<td>[.06, .50]</td>
<td>[-.30, .06]</td>
</tr>
</tbody>
</table>

Note: For regression and mediation analyses, standard errors are in parentheses next to coefficients; *** p < .001; **p < .01, * p < .05, ^p < .10

**Discussion**

This results of this study confirm that perceived engagement can be manipulated, and that cuing high engagement among professionals without familial cues within their profession can have a similar impact on perceived engagement and perceived competence as among professionals with familial cues. By demonstrating that there is no difference in perceived competence or engagement within parent-associated professionals in the high-engagement (e.g., specifying interest in a profession from a young age and listing engagement in job-related tasks) and control-engagement conditions, we confirm that familial cues insinuate greater long-term interest in a profession and engagement in job-related tasks. Further, by demonstrating that perceived engagement can be increased for professionals who do not share a profession with a parent, and can match the perceived engagement of a professional who does share a profession with a parent, we identify one cue that professionals who do not share their profession with a parent can leverage to reap the same benefits as a familial cue. In totality, the findings suggest that listing engagement in job-related tasks over time can help professionals who do not share a profession with a parent match the perceived engagement and competence of professionals who do. In other words, we demonstrate how professionals without familial cues can have the same advantages as professionals with familial cues. In our next and final study, we identify an industry characteristic that renders familial cues irrelevant and ineffective.
**Study 5: Task Complexity as a Boundary Condition**

This study identifies one boundary condition to the effect of familial cue on perceived competence. Because perceived engagement mediates the effect of familial cues, this study tests a task characteristic that attenuates the perceived engagement despite a family history in a profession. One task characteristic that researchers and managers have often manipulated and tested is task complexity (see Campbell 1988 for a review). As compared to simple tasks, complex tasks have more interdependent steps, may change over time, lack routineness, and sometimes require more information.

The complexity of a task affects engagement in the task, such that simple tasks do not engender engagement because engagement is not perceived as necessary for successful task completion (Klein et al. 1999). In the context of familial cues, a profession that is seen as simple or routine should not engender engagement in that profession. This study therefore examines how framing a single profession – pharmacology – as one that consists of simple tasks can attenuate the effect of familial cues on perceptions of a pharmacist’s competence. Additionally, this study examines whether familial cues impact skills associated with greater competence – problem solving ability (Radecki and Jaccard 1996). Because shared family professions lend themselves to increased mentorship from a parent, they increase the likelihood that knowledge is transferred through shared experiences and narratives (Swap et al. 2001). Von Hippel (1994) shows that one benefit of knowledge transfer – as we suggest a parent’s mentorship would provide – and accumulated experience – as we propose to happen through greater engagement – is the ability to reframe a problem, identify relevant pieces of information, and solve the problem more effectively. Familial cues should therefore also increase perceived problem solving ability.
**Design and Procedure**

This study followed a 2 (family vs. control) x 2 (simple task vs. complex task) between-subjects design. As compared to studies 1-4, which precluded participants who had taken related studies previously and those who failed an attention check needed to enter a study, this study used a manual process to identify participants from previous and related studies, as well as those not paying attention. This, in addition to the exclusion criteria used throughout studies, resulted in the exclusion rate being expectedly higher in this study than in studies 1-4. Of the 324 complete responses collected, 104 were excluded in line with our exclusion criteria. The final sample was comprised of 220 U.S. residents recruited on MTurk in exchange for a small monetary reward (34.5% female, $M_{age} = 34.44$, $SD = 9.88$). Participants were asked to imagine that they needed a new prescription filled. In the family condition, the pharmacist filling the prescription was stated to have chosen pharmacology because of his interest in biology, which his mother – also a pharmacist – inspired. In the control condition, the pharmacist was stated to have chosen pharmacology because of his interest in biology – no parent was mentioned. In the simple-task condition, participants were told that their doctor had prescribed them a pill, and that a pharmacist would need to correctly fill the prescription. The pharmacist’s typical day was described as ensuring that the correct pills were put in the correct bottles and given to the right patient. In the complex task condition, participants were told that their doctor had prescribed them a compound medicine, for which a pharmacist would have to mix the correct ingredients in dosages calculated based on the patient’s height, weight, and medical conditions. Further, the compound medicine may be administered in forms other than pills, such as topical ointments or inhalers. A typical day was described as ensuring that the correct strength and dosage of ingredients were correctly mixed based on the patient’s medical specifications.
Participants saw one of four pharmacists’ profiles (see Appendix G). After viewing the profile, participants evaluated perceived competence using a 9-point bipolar scale with the same items as in studies 2-4 (alpha = .90). Thus far, we focused on personality traits associated with competence. In this study, we also test the role of familial cues on perceptions of problem solving ability to better understand which skills associated with competence are influenced in person perception. We adapted Radecki and Jaccard’s (1996) measure of problem solving ability, which reflects four dimensions of problem solving ability: problem definition and formation, generation of alternative solutions, decision making, and solution implementation. Participants were asked to consider how they thought the pharmacist would handle problems on the job and indicate their agreement with each of seven statements about the pharmacist’s problem-solving ability (1 = strongly disagree to 7 = strongly agree; alpha = .71). The items are detailed in Appendix E. Results of a factor analysis with varimax rotation confirmed that the items in the perceived problem-solving ability scale loaded on a single factor that was distinct from the items used to measure perceived competence.

To test whether our manipulation of task complexity was successful, we next asked participants to indicate how complex and how difficult they perceived the pharmacist’s job to be on two items (1 = not at all complex/difficult to 7 = very complex/difficult). The items were averaged together to form a single indicator of perceived job complexity (alpha = .80). Finally, participants provided demographic information and were thanked for their participation.

Results

**Pretest: Familial Cue.** The manipulation of familial cue was pretested. Participants (N = 135 U.S. residents recruited on MTurk, 54.4% female, $M_{age} = 38.52$, $SD = 12.55$) viewed one of
the four pharmacist profiles and then indicated how closely related to other pharmacists they perceived the target pharmacist to be (1 = not at all related; 7 = very closely related). Results confirmed that participants in the family condition perceived the pharmacist to be more closely related to other pharmacists than participants in the control condition ($M_F = 5.88$, $SD = 1.09$ vs. $M_C = 5.25$, $SD = 1.26$; $F(1, 133) = 9.37$, $p = .003$, partial $\eta^2 = .067$, Cohen’s $d = .536$). There was no significant impact of task complexity condition nor interaction between family and task complexity conditions ($p’s > .20$, partial $\eta^2 < .012$, Cohen’s $d < .220$).

**Manipulation Check: Task Complexity.** Participants in the complex condition perceived the pharmacists job to be more complex ($M_{\text{Complex}} = 5.92$, $SD = .94$ vs. $M_{\text{Simple}} = 5.29$, $SD = 1.01$; $F(1, 216) = 21.27$, $p < .001$, partial $\eta^2 = .095$, Cohen’s $d = .648$). There was no significant effect of family condition or interaction between family and complexity conditions ($p’s > .1$, partial $\eta^2 < .011$, Cohen’s $d < .211$).

**Dependent Variables: Competence and Problem Solving Ability.** A $2 \times 2$ ANOVA on perceived competence showed a marginally significant two-way interaction between family condition and task complexity condition ($F(1, 216) = 3.39$, $p = .067$, partial $\eta^2 = .015$, Cohen’s $d = .247$) and a significant effect of task complexity ($F(1, 216) = 8.03$, $p = .005$, partial $\eta^2 = .036$, Cohen’s $d = .386$). In the complex condition (i.e., compound pharmacy), participants in the family condition perceived the pharmacist to be more competent ($M_F = 8.22$, $SD = .67$ vs. $M_C = 7.83$, $SD = 1.04$; $F(1, 216) = 4.73$, $p = .031$, partial $\eta^2 = .021$, Cohen’s $d = .293$). In the simple condition, no difference in perceived competence was found between the control and family conditions ($M_F = 7.64$, $SD = .94$ vs. $M_C = 7.70$, $SD = .95$; $F(1, 216) = .14$, $p = .708$, partial $\eta^2 = .001$, Cohen’s $d = .063$). Additionally, within the family condition, there was a significant
difference in perceptions of the pharmacist’s competence between the simple and complex task conditions \( F(1, 216) = 10.71, p = .001, \) partial \( \eta^2 = .047 \), Cohen’s \( d = .444 \). See Figure 4.

This pattern of results was replicated more strongly for perceived problem-solving ability as well. That is, there was a significant two-way interaction between family condition and task complexity condition \( F(1, 216) = 4.31, p = .039, \) partial \( \eta^2 = .020 \), Cohen’s \( d = .286 \). There was a significant impact of family profession on perceived problem solving ability when the task was perceived as complex \( (M_F = 5.92, SD = .78 \) vs. \( M_C = 5.59, SD = .90; F(1, 216) = 4.53, p = .035, \) partial \( \eta^2 = .021 \), Cohen’s \( d = .293 \)\), but not when the task was perceived as simple \( (M_F = 5.45, SD = .72 \) vs. \( M_C = 5.56, SD = .79; F(1, 216) = .59, p = .443, \) partial \( \eta^2 = .003 \), Cohen’s \( d = .110 \)\).

Within the family condition, there was a significant difference in perceptions of the pharmacist’s competence between the simple- and complex-task conditions \( F(1, 216) = 9.33, p = .003, \) partial \( \eta^2 = .041 \), Cohen’s \( d = .414 \). See Figure 5.

*Figure 4. Perceived Competence, Study 5, Essay One*
Discussion

This results of this study confirm that perceived task complexity can alter the effect of familial cues, such that a familial cue does not have a positive impact on perceptions of competence in simple tasks. In addition to identifying an important boundary to the effect of familial cues, this study also uses a more refined measure of problem solving to understand why shared family professions leads to positive judgments of competence. The findings suggest that shared family professions are perceived to enhance an individual’s cognitive skills in determining the nature of the problem, and then having a better toolkit to arrive at an optimal solution.

General Discussion

Because consumer decisions are shaped by their perceptions of a target professional’s competence, business owners, service providers, and producers must provide cues of competence to potential consumers (e.g. Kirmani et al. 2017). We find that familial cues function as an
indicator of greater competence. Professionals who inform consumers that they share a profession with their parent in their online biographies, as compared to those who have so such association to the profession, are perceived to be more competent because they are perceived to have been more engaged in that profession.

We demonstrate that professionals who share a profession with their parent, regardless of whether they work together/in a family business (study 1) or separately (studies 2, 3, 4, and 5), are perceived to be more competent (all studies), more experienced (study 3), and more capable of solving difficult problems (study 5). Additionally, consumers are more likely to patronize a professional when a familial cue is included in their biography or product description (studies 1 and 2). We find that this effect is mediated by perceptions of engagement in the profession, such that a target professional who shares a profession with a parent is perceived to have been more engaged in that profession. Further, we also find evidence for serial mediation through perceptions of mentorship and then perceptions of engagement, such familial cues increase perceptions of mentorship, which increase perceptions of engagement (study 3). We also rule out intrinsic motivation, extrinsic motivation, and natural gifts/talents as alternative explanations (study 3). We find that the effect of a familial cue on perceptions of a target’s competence is consistent across multiple domains, including dentists, pharmacists, architects/builders, chefs, and chocolatiers. More importantly, we identify one way in which professionals who do not share a profession with their parent can demonstrate the same elevated level of engagement as professionals who do (study 4), as well as identify industry characteristics that render familial cues ineffective, such as in simple, routine tasks (study 5).

We make two main theoretical contributions. First, to the best of our knowledge, this is the first article that examines how familial cues related to a target’s parents impact consumer
judgments and decision making. Second, we contribute to the literature on person perception, which focuses primarily on linking social associations with social traits and not on linking social associations with intellectual traits, even though intellectual traits form competence judgments (Fiske et al. 2007; Wojciszke et al. 1998) that guide consumer behavior (Kirmani et al. 2017). The person perception literature has examined the role of socio-economic status, behaviors, and physical appearance (both of the target and those associated with the target), on impressions of intellectual traits. Additionally, research on labor markets in economics has examined the role of educational background in hiring decisions, which reflect competence perceptions (Card 1999). We add to these literatures by investigating how professional information about a target’s social associations can shape perceptions or the target’s intellectual traits within the same profession.

Our work begins to address the debate on nature versus nurture, and how that may impact aptitude and dimensions of personality (e.g., Angoff 1988; McCrae et al. 2000). The “nature” perspective would argue that professional competence is based entirely on genetics and a natural gift for a profession. The “nurture” perspective, in line with our work, would argue that professional competence is based on how a person is raised.

Our findings carry important implications for when and why professionals should leverage the familial associations they have in a profession and, more importantly, when they should not. Our findings suggest that consumers’ perceptions about a target professional’s competence may be driven by perceptions about that target’s engagement in the profession and related tasks. This understanding may allow professionals who do not share a profession with their parent to alleviate concerns about their relative lack of engagement in two ways. First, professionals without a parent in the same profession could include more information about how long they have been engaged in the profession, such as being mentored from an early age.
Second, professionals could include more information about additional certifications or initiatives they have taken to advance their education. Both strategies would enhance perceptions of engagement in a profession, and therefore should increase perceived engagement in a profession, even among professionals without parents in the same profession, as demonstrated in study 4.

We identify one context in which the cue of family professions is ineffective – simple tasks. It would be useful for future research to test the impact of other industry and task characteristics, such as dynamic industries (e.g., technological advances, changing regulations and laws, new products within an industry; Chen et al. 2017; Dess and Beard 1984; Nelson and Winter 1982), on the role of familial cues. Further, it is also managerially important to understand if and when familial cues can have a negative impact on consumer perceptions. One concern that commonly arises in response to cues of family professions are concerns of nepotism, where a target professional is perceived to have received an unfair advantage due to family connections. For example, Corkindale (2007) relays his experience of working alongside a young new hire at a newspaper. Though the new hire seemed inexperienced and had difficulty meeting his deadlines, he was quickly promoted. Because the new hire’s uncle was the editor of the newspaper, Corkindale (2007) attributed the undeserved promotion to nepotism. Future research should aim to understand the role of educational qualification, preferential treatment, and promotions in exacerbating concerns for nepotism.

Second, from a managerial perspective, it would be useful to determine which other cues of greater engagement in a profession would have the same positive impact as shared family profession. It is possible that professionals without any family members in their profession may be able to signal greater engagement and competence through other means, such as additional
certifications, continued education, or contributions to the industry (e.g., training younger professionals). Third, future research could extend our findings about competence to other forms of professional decision making and behavior. For example, it is possible that parents in the same profession help develop the ability to make better hiring decisions or detect greater competence in others. Further, competence is only one dimension of service quality (Parasuraman et al. 1988). Mentorship from a parent may also transfer knowledge about other dimensions of service quality, including how to empathize with clients and better address their concerns. Fourth and finally, from a more theoretical perspective, it is possible that relatives other than parents inspired someone to pursue a profession. It is an empirical question for future research whether sharing a profession with other family members, such as siblings, aunts, uncles, and grandparents, would yield the same results.
ESSAY TWO: How Diversity Impacts Judgments of Morality

Introduction

Consumers often base important decisions on their perceptions of a small set of individuals representing a company. For example, consumers choose schools for their children and extended care homes for the elderly after meeting a set of administrators, pick news sources based on a few anchors, make purchases after interacting with a few salespersons, and decide how to respond when companies engage in unethical behavior (e.g., VW’s cheating on emission tests, Google failing to disclose that they embedded a microphone in all Nest devices, Facebook unlawfully using facial recognition, and Wells Fargo opening unauthorized accounts) after hearing from a few members of the leadership team that publicly represent the firm. In this article, we examine how the composition of a team that forms the visible face of an organization influences moral perceptions of the team and therefore affects consumers’ response to the firm.

We focus on morality judgments for several reasons. First, morality and competence are two key ingredients in impression formation (Kirmani et al. 2017; Wojciszke 1994). Second, morality judgments are made spontaneously based on observable cues such as the person’s appearance (Samper, Yang, and Daniels 2018) and can therefore can bias even competence evaluations. Third, consumers are increasingly concerned about moral consumption and are paying unprecedented attention to the moral imperative of firms (Halzack 2019; Knowledge at Wharton 2017). In response, there is growing corporate investment in moral business practices such as environmental safeguards, social equality, and community support. Finally, perceptions of morality are flexible and can be influenced by other consumer- and firm-specific factors that can influence how moral consumers perceive a firm to be regardless of its actions. It is therefore
of substantive importance for firms to understand and identify cues that could reinforce judgments of moral behavior or mitigate negative perceptions of immorality.

We posit that one important factor that can influence consumers’ perception of a firm’s morality is perceived diversity of the team that forms the visible face of the firm. Specifically, we posit that diverse teams are perceived to be more moral than homogeneous teams. We explain that this effect arises because diverse teams are perceived to be better at perspective taking. Perspective taking is the ability to consider a different point of view, and incorporate it in one’s own decision making processes (Davis 1980). Enhanced perception of perspective taking in turn leads to a more moral view of diverse teams. The notion is that the diversity cues present in a team suggest presence of more varying perspectives. Because teams are expected to work together toward a common goal (Kozlowski and Ilgen 2006) and arrive at a decision that is acceptable to the majority, team members are expected to consider each other’s perspectives (Alper, Tjosvold, and Law 1998; Hollenbeck et al. 1995). The decisions of diverse teams would be therefore be perceived as minimizing communal harm and benefitting a broader set of stakeholders (Graham et al. 2013; Grayson 2014) rather than narrowly benefitting any single constituent, and hence would be considered as more moral (Graham et al. 2013; Grayson 2014; Haidt and Joseph 2004).

We provide support for our proposed framework in a series of nine studies. We consistently find that diverse teams are perceived as having better perspective-taking abilities, which in turn leads to a perception that they are more moral and are less likely to engage in immoral behavior compared to homogeneous teams. To showcase the generalizability and the managerial relevance of the findings we demonstrate the effect in various contexts such as
corporate social responsibility, biased news, data breaches, misrepresentation of product ingredients, and charitable behaviors.

Our contribution to the consumer behavior literature lies in recognizing that the composition of the team that forms the visible face of an organization can drive consumer perceptions of the firm’s morality and therefore influence their behavior. These findings have implications for extant research on corporate social responsibility as well as prosocial consumer behavior as both these literatures rely on what consumers perceive as moral. We also contribute to prior research on how the characteristics of an individual service or sales employee impact perceptions (e.g., Ziethaml, Parasuraman, and Malhotra 2002) by extending the scope of examination to address how and why team characteristics may also impact consumer judgments. In doing so, we further contribute to literature on teams by demonstrating that team diversity is not only important for team performance and equity or fairness (Bell 2007; Joshi and Roh 2009), but can be beneficial for an organization by generating a more moral perception of the teams’ and firm’s character. Finally, we also make significant contribution to the perspective taking literature (Batson et al. 1991; Davis 1980; Epley et al. 2004), which has mainly focused on how different factors affect self-reported perspective taking. We extend this research by showing how an observers’ perceptions of the level of perspective taking within a team can have important downstream consequences for a firm.

Next, we review the relevant literatures and develop our hypotheses. We then describe nine studies in support of our proposition and conclude with the theoretical and managerial implications of the findings.
Morality and Consumer Behavior

Moral actions in the marketplace are concerned with a balance between self-interest and the greater good (Campbell and Winterich 2018). The actionable components of moral behavior for organizations, therefore, relate to minimization of harm to society (Haidt and Joseph 2004) and the pursuit of greater good (Grayson 2014; Kirmani 2015). Prior research has shown that morality and competence are two key traits in impression formation (Kirmani et al. 2017; Leach, Ellemers, and Barreto 2007; Wojciszke et al. 1998). Unlike judgments of competence that tend to be more deliberative, morality judgments are formed more impulsively before competence judgments since moral traits tend to be chronically accessible (Wojciszke et al. 1998). Moral traits, therefore, come to mind more immediately and are more dominant in impression formation than competence concerns. Wojciszke (1994) provided evidence for this by asking participants to read short descriptions of eight different behaviors while assuming the role of an observer. For each behavior, participants were asked to describe the action with the first word that came to their mind and then provide a brief, general evaluation of the behavior. Both the first words that came to mind and the more thoughtful evaluations of the behavior related more to morality than to competence, thereby demonstrating that morality traits are more dominant and come to mind first in impression information. Because morality judgments are impulsive, they also tend to be more affected by immediately observable cues such as the person’s appearance (Samper et al. 2018) and behaviors (Wojciszke et al. 1998). For example, Samper et al. (2018) show that participants perceived women who applied more makeup to be more immoral because those women are perceived to purposely misrepresent themselves. By virtue of being immediate, morality judgments can not only have a direct effect, but can also indirectly affect judgments of competence (Wojciszke et al. 1998). Therefore, understanding the
antecedents and consequences of moral perceptions of a firm is of critical importance for managers as well as researchers.

Marketplace morality also deserves close attention because consumers are increasingly concerned with moral consumption. According to a survey, 88% of the consumers believed that corporations have responsibilities towards the society and the environment (Epstein-Reeves 2010). Another study found that 79% of the Americans surveyed said that they would be more loyal to a company driven by a social cause, 67% indicated higher likelihood of forgiving a purpose-driven company if it made a misstep, and 73% indicated that they would defend a purpose-driven company (CONE 2017). Academic research confirms these positive ramifications of firms’ socially responsible actions on customers’ willingness to pay (Creyer and Ross 1997) and brand loyalty (Du, Bhattacharya, and Sen 2007). While consumers reward moral actions by firms, corporate moral lapses are increasingly under scrutiny. Consider the backlash that followed the news of Volkswagen cheating on emissions, United Airlines forcefully removing a passenger onboard, Theranos faking the capability of its blood testing technology, United States Soccer Federation criticizing the women’s soccer team as less capable than its male counterpart in a legal filing, and Walmart not paying its employees overtime despite working through holidays. Reflecting mounting consumer expectations of moral behavior, more and more firms are differentiating themselves on moral bases (Shamir 2008). For example, Johnson & Johnson claims to source 35% of their energy from renewable sources, Netflix offers their employees 52 weeks of paid parental leave, Target pledges to use ammonia to modulate temperature in their new facilities instead of environmentally harmful GHGs, and Coca Cola has transformed its supply chain to reduce its carbon footprint. Charitable giving by companies is also unprecedented. During the outbreak of COVID-19 in 2020, Apple and Facebook pledged to
donate over 10 million protective face masks, Microsoft created a confirmed case tracker as an assessment tool for the CDC, and Amazon pledged 20 million dollars to fund vaccine research while reprioritizing warehouse operations to focus on delivering essential items first.

Though corporate moral imperatives are more center stage than ever before, a key finding in the marketplace morality literature is that consumers’ perception and expectations of morality are flexible and can be shaped by other firm- and consumer-specific factors besides the moral initiatives undertaken by the firm (Campbell and Winterich 2018). For example, consumers who already hold a positive attitude towards a brand can engage in moral rationalization upon viewing the brand morally transgress (e.g., Paharia, Vohs, and Deshpande 2001). That is, they may be motivated to construe the brand’s behavior as more moral or to separate its performance from its morality (Bhattacharjee, Berman, and Reed 2013). Similarly consumers may form moral perceptions differently depending on factors such as the size, origin, industry, or location of the firm (Crilly, Ni, and Jiang 2016; Kirmani et al. 2017; Paharia et al. 2001; Yoon, Gurhan-Canli, and Schwarz 2006). Furthermore, prior research in social psychology has linked high status (Piff et al., 2012) and high power (Boles, Croson, and Murnighan 2000; Lammers, Stapel, and Galinsky 2010) to more unethical and immoral behaviors at the individual level. Applying this to the marketplace, consumers may perceive smaller and/or local firms as more moral and less likely to do harm due to their lack of market power compared to larger and/or international firms. Consumers may even interpret the same act (e.g., initiatives to avoid harming the environment) as less moral when enacted by a large international corporation than when enacted by a domestic company (Crilly et al. 2016). Similarly, consumers may form a different perception of morality for entities that are perceived as warm and caring (such as non-profits) versus those that are perceived to be competent (e.g., for-profits; Aaker, Vohs, and Mogilner 2010; Kirmani et al.
Together, these extant findings point to the importance of further examining what factors can shape consumers’ perception of a firm’s morality.

We propose that an important factor that can affect morality perceptions is the level of diversity in the team representing the firm. The notion rests on two key points. First, how people perceive brands and how they form brand relationships has a significant overlap with how they perceive other individuals and arrive at interpersonal relationships (Aaker, Fournier, and Brasel 2004; Fournier and Alvarez 2012; Kervyn, Fiske, and Malone 2012). Second, as discussed earlier, people spontaneously arrive at moral judgements of others by using observable cues such as appearance (e.g., Samper et al. 2018). Given that diversity in a team is a highly observable cue, we posit that it can also spontaneously shape consumers’ perceptions of a firm’s morality just the way observable cues spontaneously shape person-perceptions.

**Physical and Psychological Diversity**

Teams are defined as small groups of individuals who share responsibility for the outcomes for their organizations (Sundstrom, De Meuse, and Futrell 1990, 120). Team members interact socially, possess common goals, perform organizational tasks together, and have different roles and responsibilities towards interdependent goals and common outcomes (Kozlowski and Ilgen 2006). Prior research has devoted significant attention to understanding the role of both physical and psychological diversity within teams. Physical diversity is based on observable fixed characteristics, such as gender, age, and race (Bell 2007; Dasgupta, Banaji, and Abelson 1999; Joshi and Roh 2009; Wai-man Ip, Chiu, and Wan 2006), whereas psychological diversity is unobservable and depends on characteristics like educational background, expertise, tenure at the firm, values, and personality factors (Bell 2007; Joshi and Roh 2009).
Psychological diversity significantly impacts team performance. Psychologically similar teams are more coordinated (Harrison, Price, and Bell 1998; Harrison et al. 2002), and are better at completing routine tasks (Wegge et al. 2008). Psychologically diverse teams, on the other hand, are better at creativity, innovation, and solving novel problems and tasks (Hoever et al. 2012; West 2002). There is less consensus on the effect of physical diversity on team performance. Zellmer-Bruhn et al. (2008) found that physically homogeneous teams socialize better and have similar work styles. However, Harrison et al. (1998) demonstrated that the positive effects of team homogeneity in early stages is nullified in later stages of a project. In a meta-analytic review, Webber and Donahue (2001) concluded that physical diversity does not significantly impact team performance.

More relevant for current research is the effect of diversity in teams on an observer’s perception of the team. To this end, physical diversity in a team is noteworthy. Similarity in physical features among group members (e.g., skin color, similar movement) promote perceived similarity in psychological traits. For example, Wai-man Ip et al. (2006) found that a group of green fictional characters was expected to be more similar and share common essential qualities compared to a group of differently-colored fictional characters. Dasgupta et al. (1999), examined the effect of physical similarity in the context of stereotypes and demonstrated that a group of five fictional characters of the same color (i.e., all five group members were either red, blue, green, purple or yellow) was perceived to be more capable of threatening, causing harm, and showing hatred than a group of five differently-colored fictional characters (i.e., one green, one red, one blue, one purple, one purple, one yellow). Similarly, Lakens and Stel (2011) found that two women who waved their right hand at a camera synchronously were perceived to be more
unified and capable of acting as one than the same two women when they waved their hand asynchronously.

This research suggests that people make fast attributions about higher order values (e.g., as achieving common goals) and cognitive features (e.g., coordination) from observable cues. Similarity in observable cues is thus seen as evidence for unobservable similarity. Building on this research we posit that people may also infer morality from observable cues present in a group.

**Team Diversity and Judgments of Morality**

We propose that observable diversity in a team will lead to a greater moral perception of the team and hence the firm. We argue that this occurs because greater diversity results in greater perception of perspective taking in a team, which in turn results in a perception of morality. Perspective taking is the adoption of perspectives of other people and considering things from another’s point of view (Davis 1980). In other words, perspective taking is a form of empathy that reflects the ability to understand how someone else felt in a situation and how one would feel if they were in that same situation (Batson, Early, and Salvarani 1997; Davis 1980; Epley 2004; Eyal, Steffel, and Epley 2018). The two key ingredients of perspective taking, therefore, are presence of different perspectives and the ability to adjust their own views based on the perspectives of others (Epley 2004).

Perspective taking has been shown to alter behavior in diverse domains. In negotiations, perspective taking increases both how quickly parties reach an agreement as well as how mutually beneficial that agreement is (Galinsky et al. 2008). For instance, after being told to engage in perspective taking, buyers offered a higher price and sellers asked for a lower price.
Similarly, recruiters offered new hires larger compensation packages after engaging in perspective taking. Perspective taking also increases altruism toward a victim, such as in the form of time donated to help someone in need (e.g., Maner et al. 2002; Oswald 1996), increases how creatively individuals (Grant and Berry 2011) and teams (Falk and Johnson 1975; Hoever et al. 2012) approach and complete work tasks and solve problems, and can accelerate conflict resolution and cooperation (Gillespie and Richardson 2011). While the critical role of perspective taking is well studied in interpersonal interactions, we move this literature forward by focusing on the effect perception of perceptive taking within a group can have on judgment and behavior by someone external to the group.

Prior findings that physical diversity in teams reflects perceived psychological diversity provides an important insight into how team diversity may affect perceptions of perspective taking. First, the observed physical differences in diverse teams should lead to the perception that these teams are more psychologically diverse. Therefore, in homogeneous teams members should be perceived to have more similar perspectives and therefore be more likely to reinforce parallel existing beliefs and less likely to introduce conflicting opinions (Byrne 1971; Byrne 1997; Hornsey 2008; Turner et al. 1987). On the other hand, members of diverse teams should be perceived as more likely to have different viewpoints, concerns, interests, and rules of conduct.

Second, decision making in teams requires team members to reach consensus and arrive on a single course of action (e.g., Alper et al. 1998; Hollenbeck et al. 1995). Therefore, an observer may expect that a diverse team has both different perspectives reflected among its members, and that the members have the ability to adjust their views based on the perspectives of others.

We further propose that this perception of perspective taking in diverse teams would serve as a cue for greater morality to an observer. As discussed in the previous section,
marketplace morality is concerned with a balance between self-interest and the greater good. Actions that benefit the society more broadly are therefore perceived as more moral than those that benefit select and narrow groups. To the extent that a decision of a more diverse team reflects an agreement from members who represent several different views and interests, this decision should be perceived as agreeable to and as benefiting a wider population and thus as serving greater good and as more moral. In sum, we predict that diverse teams, as opposed to homogeneous teams, will be perceived as more moral because they are perceived to engage in more perspective taking. Consequently, individuals leading more diverse teams are similarly expected to be perceived as more moral and so are firms represented by a more diverse team. These favorable impressions of morality can have downstream consequences for consumer purchase and other market behaviors.

**Overview of Studies**

In each of the three pilot studies, we examine the impact of different forms of diversity (e.g., racial, gender, nationality) on immoral behavior in the context of hiring decisions, charitable donations, and investment in renewable energy. In each of the six main studies, we narrow our focus on a single form of diversity and examine the process underlying the association between diversity and morality. Using a context of news anchors, study 1A provides evidence for the proposed main effect of team diversity on judgments of a team’s moral traits and immoral behaviors. Study 2A uses a different context – judgments of the leadership team in a telecommunications company – and rules out two alternative explanations: greater coordination among homogeneous teams and impression management among diverse teams. Studies 1A and 2A use all-male teams that differ in terms of race. Studies 1B and 2B replicate studies 1A and
2A, but use all-female teams instead. Next, in study 3, we test how perceptions of a leader’s 
moral traits and immoral behaviors are influenced by the diversity of his team. The first five 
studies (studies 1A-3) also test the mediating role of perspective taking. These studies focus on 
the role of observable racial diversity. In order to extend our findings beyond racial diversity, in 
study 4 we test the role of gender diversity among a minority race. Study 4 also deepens our 
understanding of why diverse teams are perceived to engage in more perspective taking by 
measuring the extent to which teams are perceived to have broad perspectives and identify the 
role perspective breadth play in the association between diversity and morality judgments.

Across studies, our inclusion criteria was limited to U.S. residents above the age of 18 
who completed the study in its entirety. Additionally, pilots A and B imposed a deadline within 
which the study needed to be completed in order to be included, and pilot B and study 4 
precluded participants who had previously participated in related studies or failed an attention 
check required to enter the survey. In all studies, effect sizes reflect the inclusion of all variables 
and interactions included in the analyses.

Pilot Studies: Hiring Decisions, Charitable Donations, and Green Energy Investments

In each of our pilot studies, we examine perceptions of a team and their intent to cause 
harm in different contexts. The first pilot study establishes the impact of team diversity on 
perceptions of a human resource team’s likelihood of making biased decisions. The second pilot 
examines the impact of diversity on charitable donations following a national disaster. The third 
and final pilot examines the impact of diversity on investments in renewable energy. It is easy to 
see how engagement in the behaviors in these studies (i.e., biased firing decisions, not adhering 
to the charity mission, polluting the environment) would cause harm and be considered immoral.
We leverage the different scenarios and teams in these studies to examine the impact of different forms of diversity, both with and without priming immorality concerns, and among different consumer bases, ranging from executive education students to general population.

**Pilot A Design and Procedure**

Forty-seven working professionals (15% female) enrolled in an executive program completed the study before the deadline, which was two weeks after the study was published. Participants were asked to imagine that their company was downsizing due to the industry outlook. They were told that one third of the company’s work force would be laid off within the month. The workforce composition of the firm was described (58% of employees had graduate degrees and 14% had doctorate or advanced degrees; women constituted 40% of the supervising and staff population and 18% of the executive population; minorities constituted 30% of the supervising and staff population and 15% of the executive population; these statistics were based on current industrial averages). Participants were told that the company headquarters were sending a team of HR consultants to make and execute firing decisions and determine severance packages, and that the team possessed the authority to make unilateral decisions. Participants were then shown either the diverse (mixed race and gender) or homogenous (white male) team of consultants (see Appendix H).

After viewing the team, participants evaluated how biased the team’s decisions would be (1 = not at all to 7 = very), where higher scores indicate greater immorality. To measure response to immorality, participants indicated how important it would be for an external group to review the team’s decisions (1 = not at all to 7 = very). Next, as a manipulation check of the team’s diversity, participants indicated how similar or diverse they felt the team was in terms of gender...
and race separately (1 = the members are all different to 7 = the members are all the same). Finally, participants provided demographic information.

**Pilot A Results**

In all our analyses, in this study and others, we control for participant gender (1 = female, 0 = male), race (1 = Caucasian; 0 = non-Caucasian), and political identity (1 = liberal, 4 = independent, 7 = conservative). These fields were collected with demographic information at the end of each study.

**Diversity manipulation check.** Results of an ANOVA confirmed that participants in the diverse condition perceived the team to be less similar in terms of gender ($M_D = 3.43$, $SD_D = 1.16$ vs. $M_H = 6.71$, $SD_H = .91$; $F(1, 42) = 91.10, p < .001$, partial $\eta^2 = .684$, Cohen’s $d = 2.942$) and race ($M_D = 3.70$, $SD_D = 1.66$ vs. $M_H = 6.29$, $SD_H = 1.33$; $F(1, 42) = 23.00, p < .001$, partial $\eta^2 = .354$, Cohen’s $d = 1.481$).

**Decision immorality and need for external review.** Our theory suggests that the behavior of the homogenous team would be perceived as more immoral than those of the diverse team, and that the homogenous team would be in greater need of external review. The results of this study, controlling for participant gender, race, and political identity, confirmed these predictions. Participants who viewed a diverse team expected the team to be less likely to make biased decisions ($M_D = 3.52$, $SD_D = 1.38$ vs. $M_H = 4.87$, $SD_H = 1.36$; $F(1, 42) = 13.17, p = .001$, partial $\eta^2 = .239$, Cohen’s $d = 1.121$) and less likely to require external review more ($M_D = 4.61$, $SD_D = 1.85$ vs. $M_H = 6.08$, $SD_H = 1.25$; $F(1, 42) = 7.93, p = .007$, partial $\eta^2 = .159$, Cohen’s $d = .870$) compared to participants who viewed a homogeneous team.
Pilot B Design and Procedure

This study was run 18 days after Hurricane Harvey among, which severely impacted the city of Houston in September of 2017. Immediately after, several local charities, including the two presented to participants in this study, began raising money to help the city recover. We selected two Houston-based charities, which, were similar in terms of their mission to benefit the Houston community through charitable initiatives, their age (both founded in the early 20th century), and on the surface, differed only in terms of the diversity of their leadership. Participants were given the opportunity to allocate $100 between themselves, a charity run by a diverse group, and a charity run by a homogenous group.

Forty-eight participants completed the study, of which four were excluded as they fit one or more of the following criteria: outliers (±3 SD from the mean) in terms of time taken to complete the survey or any one question, demonstrating a lack of attention, prior participation or multiple entries into the survey, or accessing the study from a non-U.S. location. We followed the same exclusion criteria in all studies. The final sample comprised of 44 U.S. residents (50% female, $M_{\text{Age}} = 45.67, \text{SD} = 13.22$) who were recruited on MTurk in exchange for a reward and a chance to win a $100 lottery. Due to the extensive and altering news of the event, we restricted data collection to one hour. Participants were given a brief overview of Hurricane Harvey and what the Federal Emergency Management Agency (FEMA) – the government entity responsible for coordinating responses to natural disasters in the U.S. – had determined were necessary actions to rebuild the city of Houston and its surrounding suburbs. Participants then read about two local charities and were shown a photograph of their leadership. The pictures were of the real leadership team of each charity. The first charity featured a more diverse leadership (one Asian man, one Caucasian woman, one Indian woman, and one African American woman;
Charity D hereafter) and was described as having a mission to help ensure the equality of opportunity among members of the Houston community. The second charity featured a homogenous leadership (four Caucasian women; Charity H hereafter) and was described as having a mission of helping all members of the Houston community realize their fullest potential.

Participants first indicated their relative likelihood of donating to the two charities (1 = more likely to donate to Charity D, 4 = equally likely to donate to either charity, 7 = more likely to donate to Charity H). Next, participants were given the option to donate a portion of their lottery winnings (if they were to win) in an allocation task. Participants were asked to allocate the 100 USD between Charity D, Charity H, and themselves. Participants then evaluated the extent to which each charity would adhere to their mission of helping the Houston community (1 = not at all to 7 = very much), which was our primary measure of moral behavior in this study. Finally, participants indicated how similar they found the leaders of each organization to be in terms of appearance before providing demographic information. Political identity was not measured. We control for participant gender and race in our analyses.

**Pilot B Results**

**Diversity manipulation check.** The paired mean comparisons confirmed that participants perceived the leaders of Charity D, the diverse charity, to be less similar than the leaders of Charity H, the homogeneous charity, in terms of physical appearance ($M_D = 3.36$, $SD_D = 1.71$ vs. $M_H = 5.91$, $SD_H = 1.46$; $t(43) = -7.02, p < .001$).

**Moral Behavior.** Participants evaluated the extent to which they expected each charity to adhere to their mission statement, thereby evaluating the perceived truthfulness and morality of
the team. Results of paired mean comparisons revealed that participants expected the charity lead by a diverse team, Charity D, to adhere to their mission statement more so than Charity H, the charity lead by the homogenous team (\(M_D = 5.61, SD_D = 1.10\) vs. \(M_H = 4.89, SD_H = 1.62\); \(t(43) = 2.93, p < .01\)).

**Pilot C Design and Procedure**

In this study, we examined the role of nationality diversity within a single gender, in the context of investment in green energy. We collected 93 responses, of which two were excluded in line with our exclusion criteria. The final sample was comprised of 91 U.S. residents recruited on MTurk in exchange for a small monetary reward (\(M_{\text{Age}} = 39.32, SD = 13.31\)). Participants read an article about a fictitious energy company that was going to decide whether their next large investment would be in conventional oil and gas, which may pollute surrounding neighborhoods, or renewable/green energy, which would likely have fewer side effects. The article was paired with a picture of the four members of the company’s leadership, all of whom were white males.

Each member of the homogeneous team was paired with a member on the diverse team (here and in the remaining studies). Pretests were conducted to select photographs such that each member of the homogeneous team did not differ from his pair on the diverse team in terms of morality, attractiveness, friendliness, or likability (see Appendix I). For instance, the second member of the homogeneous team did not differ from the second member of the diverse team in terms of morality, attractiveness, friendliness, or likability. These pretests ensured that the teams were equivalent in terms of the perceived morality of individual members and the average morality of the four members of the team (calculated as the average of the four members’
individual morality scores). Of note, prior research shows that expectations of the same person’s behavior may change when they are evaluated individually versus when they are evaluated as part of a group (Dasgupta et al. 1999). We therefore expect to find differences in the perceived morality of a team despite the individual members of the team being comparably moral.

To manipulate nationality diversity, we altered the names of the individual members of the team while leaving the pictures the same. In the diverse condition, the four members were given last names typically associated to diverse nationalities. In the homogeneous condition, the four members were given traditionally American last names (see Appendix J).

After reading the article, participants indicated how likely the team was to invest in sustainable/green energy (1 = very unlikely to 7 = very likely). Finally, participants indicated how similar they found the leaders of each organization to be in terms of nationality before providing demographic information.

**Pilot C Results**

**Diversity manipulation check.** Participants perceived the diverse team to be less similar than the homogeneous team in terms of nationality ($M_D = 3.80, SD_D = 2.27$ vs. $M_H = 6.53, SD_H = .62; F(1, 86) = 59.28, p < .001$, partial $\eta^2 = .408$, Cohen’s $d = 1.660$), confirming that our manipulation was successful.

**Moral behavior.** As predicted, participants perceived the diverse condition rated the team as more likely to invest in sustainable/green energy ($M_D = 4.83, SD_D = 1.53$ vs. $M_H = 4.07, SD_H = 1.74; F(1, 86) = 4.30, p = .041$, partial $\eta^2 = .048$, Cohen’s $d = .449$).
Discussion

Collectively, these three pilot studies provide support for the proposed main effect of racial, gender, and nationality diversity on perceptions of a team’s moral behavior and traits in a variety of contexts, with various samples. To develop a better understanding of how each form of diversity impacts moral perceptions, in the remaining studies, we manipulate only one form of diversity in each study. Further, we explore different contexts and moral behaviors, as well as investigate how team diversity may impact consumers’ responses to firm diversity.

Studies 1A and 1B: Biased News

Studies 1A and 1B provide the first test of our proposition that team diversity positively impacts perceptions of morality, and that perceived perspective taking mediates this effect. We examine both perceptions of moral traits as well as perceived likelihood of immoral behavior. Finally, to demonstrate the implications of shifts in perceived morality we examine how diversity in teams affects consumers’ expectations of the quality of service from that team and their inclination to patronize the firm represented by the team. We begin by describing study 1A and then detail the differences in study 1B and its results.

Study 1A Design and Procedure

Participants from MTurk completed study 1A (N = 150 U.S. residents, 46% female, $M_{\text{Age}} = 35.37$, SD = 12.11). Participants viewed photographs of a four-member team (Appendix K). Each photograph featured a professional headshot of one person from the chest up. All photographs were selected with the individuals smiling and dressed in business attire. Participants were randomly assigned to one of two diversity conditions. We focused on racial
diversity and presented participants either a team of four white males (homogeneous condition) or a multi-racial team of four men (diverse condition).

Participants were asked to imagine that their local news station recently introduced a new team of anchors. To make the morality issue salient, one of anchors (top, left male in Appendix K) was described as being accused earlier of broadcasting biased and sometimes dishonest news. All participants then responded to several items.

**Perceived Morality.** Team’s morality was measured using two measures: team’s moral traits, and team’s likelihood to engage in immoral behavior. Following Samper et al. (2017), the team’s moral traits were evaluated on four 7-point semantic differential items (ethical/unethical, moral/immoral, honest/dishonest, trustworthy/untrustworthy; alpha = .96). A higher value on this scale reflects greater immorality. Team’s likelihood to engage in immoral behavior was measured through three items: broadcasting one-sided news, broadcasting biased news, and the participant’s likelihood of fact checking the broadcasts (1 = not at all likely to 7 = very likely; alpha = .74). A higher value on this scale reflects greater likelihood of engaging in immoral behavior.

**Perceived Perspective Taking.** To measure perceived perspective taking, we adapted Davis’s (1980) perspective taking measure. Participants were asked to consider how the members of the team might interact with each other, and then indicate the extent to which they agreed that each of seven statements reflected how members of the team interact with each other (1 = strongly disagree to 7 = strongly agree; alpha = .90). The statements included: Before criticizing one another, each member of the team will try to imagine how the other member would feel if the roles were reversed; If a member of the team is sure they are right about something, they will not waste much time listening to other team members’ arguments (revers-
coded); Each member of the team will try to understand their teammates better by imagining how things look from their perspective; Each member of the team believes there are two sides to every question and tries to look at them both; Each member of the team will find it difficult to see things from another team member’s point of view (reverse-coded); Each member of the team will try to look at everybody’s side of the disagreement before they make a decision; When one team member is upset at another member of the team, they will try to “put themselves in the other person’s shoes” for a while.

**Consumer Response to Perceived Morality.** To measure the downstream benefits of greater morality perception, we assessed participants’ inclination to watch the news team and the team’s expected performance. We measured intentions to watch news from the broadcasting team using a three-item (likely, willing, inclined), bipolar scale (1 = not at all to 7 = very; alpha = .96). To measure participants’ expectation from the team we asked them to indicate how they expected the team to perform (1 = very bad to 7 = very good).

**Moral Expansiveness.** To show that moral teams are indeed seen as more concerned with greater good we also collected the extent to which the team was perceived as having concern for different entities. We adapted Crimston et al.’s (2016) measure of moral expansiveness and asked participants to what extent they thought the news team would ensure the welfare of different entities and treat each of the entities fairly. We used a 9-point Likert scale (1 = not at all morally concerned to 9 = very morally concerned; alpha = .96) to gauge concern for nine different entities (someone with different: political beliefs, religious beliefs, nationalities, race, residential status, economic background, sexual orientation, mental health and disability).
Manipulation Check. Finally, as a manipulation check, we assessed the perceived racial similarity of the teams (1 = very dissimilar to 7 = very similar), collected demographic information, including participant gender, race, and political identity.

Study 1A Results

Diversity Manipulation Check. Results of an ANOVA confirmed that participants who viewed the diverse team perceived the team members to be less similar in terms of race than participants who viewed a homogeneous team ($M_D = 1.64, SD_D = 1.37$ vs. $M_H = 6.42, SD_H = 1.22; F(1, 145) = 500.88, p < .001$, partial $\eta^2 = .776$, Cohen’s $d = 3.723$).

Perceived Morality. As predicted, participants in the diverse condition perceived the team to embody a higher level of moral traits compared to participants in the homogeneous condition as indicated by lower scores in the diverse condition ($M_D = 3.67, SD_D = 1.48$ vs. $M_H = 4.54, SD_H = 1.42; F(1, 145) = 12.89, p < .001$, partial $\eta^2 = .082$, Cohen’s $d = .598$) and as less likely to engage in immoral behaviors ($M_D = 4.45, SD_D = 1.32$ vs. $M_H = 5.36, SD_H = .96; F(1, 145) = 22.58, p < .001$, partial $\eta^2 = .135$, Cohen’s $d = .790$).

Mediating Role of Perceived Perspective Taking. We predicted that perceived perspective taking mediates the effect of diversity on perceptions of team’s morality. To test this, we conducted mediation analysis (Model 4, Hayes 2013) with each of the two morality measures (i.e., moral traits and immoral behavior). In each test, the diversity condition was included as the independent variable (1 = diverse, 0 = homogeneous), perceived perspective taking as the mediator, morality measure as the dependent variable. Team diversity positively affected perceived perspective taking, indicating that members of a diverse teams were perceived as more capable of taking each other’s perspective ($M_D = 4.06, SD_D = 1.24$ vs. $M_H = 3.42, SD_H = 1.15$;
Moreover, consistent with our theoretical account, perceptions of perspective taking mediated the effect of diversity on perceived moral traits (95% CI: [-.80, -.20]) as well as the effect of diversity on perceived likelihood of team’s engagement in immoral behaviors (95% CI: [-.60, -.15]).

**Consumer Response to Perceived Morality.** We predicted that greater perceived morality can have downstream consequences on consumers’ attitude and behavior. Consistent with this notion, relative to the homogeneous condition, participants in the diverse condition were more inclined to watch the news team ($M_D = 4.14, SD_D = 1.64$ vs. $M_H = 3.36, SD_H = 1.69$; $F(1, 145) = 8.41, p < .01$, partial $\eta^2 = .055$, Cohen’s $d = .482$) and anticipated the team to perform better ($M_D = 4.55, SD_D = 1.46$ vs. $M_H = 3.78, SD_H = 1.62$; $F(1, 145) = 9.69, p < .01$, partial $\eta^2 = .063$, Cohen’s $d = .519$).

**Serial Mediation Role of Perceived Perspective Taking and Perceived Morality on Consumer Response to Perceived Morality.** To test our theoretical account that perceptions of morality impact consumers’ attitudes and behaviors, we test whether perceived perspective taking and perceived morality serially mediate the impact of team diversity on consumers’ attitudes and behaviors (Model 6, Hayes 2013). In each test, the diversity condition was included as the independent variable (1 = diverse, 0 = homogeneous), perceived perspective taking as the first mediator, morality measure (moral traits or immoral behavior) as the second mediator, and consumer attitudes and behaviors (expected quality and inclination to watch the news team) as the dependent variable. Consistent with our theoretical account, expected performance was serially mediated by perceptions of perspective taking and perceptions of morality, both in terms of moral traits (95% CI: [.08, .51]) and immoral behaviors (95% CI: [.03, .27]). Inclination to watch was similarly serially mediated by perceptions of perspective taking and perceptions of
morality, both in terms of moral traits (95% CI: [.08, .47]) and immoral behaviors (95% CI: [.02, .28]). See table 5 for a summary.

Table 5. *Summary of Serial Mediation Analyses, Study 1A, Essay Two*

<table>
<thead>
<tr>
<th>Mediating role of perceived perspective taking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Direct effect of team diversity</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Moral traits</td>
</tr>
<tr>
<td>Immoral behaviors</td>
</tr>
<tr>
<td>Perceived perspective taking</td>
</tr>
<tr>
<td>Diversity</td>
</tr>
<tr>
<td>- .85 (.24)**</td>
</tr>
<tr>
<td>- .89 (.20)**</td>
</tr>
<tr>
<td>.68 (.20)**</td>
</tr>
</tbody>
</table>

| Indirect effect of team diversity             |
|                                              |
| Diversity                                     |
| - .31 (.19)                                   |
| Perceived perspective taking                  |
| - .79 (.08)**                                 |
| 95% CI index of mediation                     |
| [-.80, -.20]                                  |
| [.60, -.15]                                   |

<table>
<thead>
<tr>
<th>Serially mediating role of perceived perspective taking and morality on expected performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>DV = Expected performance</td>
</tr>
<tr>
<td>DV = Inclination to Watch</td>
</tr>
<tr>
<td>Diversity</td>
</tr>
<tr>
<td>Moral traits</td>
</tr>
<tr>
<td>Immoral behaviors</td>
</tr>
<tr>
<td>.13 (.20)</td>
</tr>
<tr>
<td>.11 (.22)</td>
</tr>
<tr>
<td>.11 (.22)</td>
</tr>
<tr>
<td>.09 (.23)</td>
</tr>
<tr>
<td>Perceived perspective taking</td>
</tr>
<tr>
<td>.30 (.11)**</td>
</tr>
<tr>
<td>.51 (.11)**</td>
</tr>
<tr>
<td>.41 (.12)**</td>
</tr>
<tr>
<td>.59 (.11)**</td>
</tr>
<tr>
<td>Perceived morality</td>
</tr>
<tr>
<td>-.55 (.09)**</td>
</tr>
<tr>
<td>-.39 (.11)**</td>
</tr>
<tr>
<td>-.50 (.09)**</td>
</tr>
<tr>
<td>.38 (.12)**</td>
</tr>
<tr>
<td>95% CI index of serial mediation</td>
</tr>
<tr>
<td>[.08, .51]</td>
</tr>
<tr>
<td>[.03, .27]</td>
</tr>
<tr>
<td>[.08, .47]</td>
</tr>
<tr>
<td>[.02, .28]</td>
</tr>
</tbody>
</table>

Note: For regression and mediation analyses, standard errors are in parentheses next to coefficients; ***p < .001; **p < .01, *p < .05

**Moral Expansiveness.** Finally, consistent with the notion that greater morality reflects a concern for greater good, we found that the diverse team was indeed seen as being concerned for a wider set of entities as indicated by a higher moral expansiveness score ($M_D = 5.87$, $SD_D = 1.77$ vs. $M_H = 4.50$, $SD_H = 1.79$; $F(1, 145) = 21.69, p < .001$, partial $\eta^2 = .130$, Cohen’s $d = .773$).

Consistent with our theoretical account that increased moral perceptions serial mediation, perceived perspective breadth and perceived perspective taking serially mediated the effect of
diversity on perceived moral traits (95% CI: [-.38, -.02]). To confirm the order of mediation, we reversed the order of the two mediators (i.e., perspective breadth and perceived perspective taking) and found that the reversed pathway did not serially mediate the effect of diversity on morality judgments (95% CI: [-.18, .002]). These results conclude that perceptions of a broader perspective existing within a team result in perceptions of greater perspective taking in a diverse group.

**Study 1B**

Study 1B was identical to study 1A with one primary change: the homogeneous and diverse teams were comprised of only women (see Appendix K). The inclusion of women in a company’s workforce is often seen as diversity in itself (Fuhrmans 2017). We, therefore, wanted to test whether our proposition is generalizable to all-female teams. Of 202 participants who completed the study, 59 were excluded in line with our exclusion criteria. The final sample was comprised of 143 U.S. residents (49% female, $M_{\text{Age}} = 35.20$, $SD = 9.77$). The procedure and measures were identical to study 1A. Participants either viewed a racially diverse team of female anchors or a racially homogeneous team on female anchors. The manipulation confirmed that participants in the diverse condition perceived the team to be less similar than participants in the homogeneous condition ($M_D = 2.28$, $SD_D = 1.68$ vs. $M_H = 6.64$, $SD_H = .85$; $F(1, 138) = 384.71$, $p < .001$, partial $\eta^2 = .736$, Cohen’s $d = 3.339$). The patterns of results replicated those in study 1A (see table 6).
### Table 6. Summary of Mean Comparison and Serial Mediation Analyses, Study 1B, Essay Two

<table>
<thead>
<tr>
<th>Effect of diversity</th>
<th>Alpha</th>
<th>Diverse</th>
<th>Homogeneous</th>
<th>$F(1,138)$</th>
<th>$p$</th>
<th>Partial $\eta^2$</th>
<th>Cohen’s $d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral traits</td>
<td>0.96</td>
<td>3.53</td>
<td>4.34</td>
<td>11.35</td>
<td>&lt;.001</td>
<td>0.076</td>
<td>0.574</td>
</tr>
<tr>
<td>Immoral behavior</td>
<td>0.92</td>
<td>4.36</td>
<td>4.86</td>
<td>4.13</td>
<td>0.044</td>
<td>0.029</td>
<td>0.346</td>
</tr>
<tr>
<td>Expected performance</td>
<td>N/A</td>
<td>4.57</td>
<td>3.82</td>
<td>9.73</td>
<td>0.002</td>
<td>0.066</td>
<td>0.532</td>
</tr>
<tr>
<td>Inclination to watch</td>
<td>0.95</td>
<td>4.27</td>
<td>3.53</td>
<td>7.45</td>
<td>0.007</td>
<td>0.051</td>
<td>0.464</td>
</tr>
<tr>
<td>Moral expansiveness</td>
<td>0.95</td>
<td>5.98</td>
<td>4.98</td>
<td>10.39</td>
<td>0.001</td>
<td>0.070</td>
<td>0.549</td>
</tr>
</tbody>
</table>

#### Mediating role of perceived perspective taking

**Direct effect of team diversity**

<table>
<thead>
<tr>
<th></th>
<th>Moral traits</th>
<th>Immoral behaviors</th>
<th>Perceived perspective taking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity</td>
<td>-.77 (.22)***</td>
<td>-.49 (.24) *</td>
<td>.44 (.20)*</td>
</tr>
</tbody>
</table>

**Indirect effect of team diversity**

<table>
<thead>
<tr>
<th></th>
<th>Moral traits</th>
<th>Immoral behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity</td>
<td>-.52 (.20)*</td>
<td>-.24 (.22)</td>
</tr>
<tr>
<td>Perceived perspective taking</td>
<td>-.57 (.09)***</td>
<td>-.57 (.09)***</td>
</tr>
</tbody>
</table>

95% CI index of mediation

[.53, -.04] [-.52, -.04]

**Serially mediating role of perceived perspective taking and morality on expected performance**

<table>
<thead>
<tr>
<th></th>
<th>DV = Expected performance</th>
<th>DV = Inclination to Watch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity</td>
<td>Moral traits</td>
<td>Immoral behaviors</td>
</tr>
<tr>
<td></td>
<td>.17 (.17)</td>
<td>.34 (.18)</td>
</tr>
<tr>
<td>Perceived perspective taking</td>
<td>.32 (.08)***</td>
<td>.39 (.08)***</td>
</tr>
<tr>
<td>Perceived morality</td>
<td>-.52 (.07)***</td>
<td>-.41 (.07)***</td>
</tr>
</tbody>
</table>

95% CI index of serial mediation

[.02, .29] [02, .33] [.01, .23] [.02, .27]

**Note:** For regression and mediation analyses, standard errors are in parentheses next to coefficients; ***$p < .001$; **$p < .01$, *$p < .05$
Once again, we found that the diverse team was perceived as having a higher level of moral traits and as less likely to engage in immoral behaviors, both mediated by greater perceived level of perspective taking. Further, the diverse team was also seen as having moral regard for a wider set of entities than the homogeneous team. Finally, participants indicated that they were more inclined to watch the diverse team of news anchors and expected the diverse team to perform better, serially mediated by perceived perspective taking and moral judgments (both in terms of moral traits and immoral behaviors). The main difference between the two studies was that the effect of diversity was stronger for male teams. It is possible that this difference is due to female gender roles, which focus on communality, interpersonal relationships, and avoiding harm to others (Gilligan 1982).

Discussion

Together, results from studies 1A and 1B support our hypotheses that diversity makes a team appear more moral and as less likely to engage in immoral behaviors because the members of a diverse team are perceived to have greater perspective taking abilities. We also confirmed that the moral concern indeed related to greater good as the moral team is perceived as being concerned for the welding of a wider variety of others, including those who are dissimilar in beliefs, abilities, and status. Finally, the heightened morality perceptions of a diverse team result in more favorable consumer expectations and response to the diverse team and the firm.

Studies 2A and 2B: Data Breach in Telecommunications

Study 2 serves three purposes. First, in addition to perceptions of moral traits and behaviors, we also included filler traits and behaviors to rule out the possibility of a positive
“halo effect” of diversity on the team more broadly. Second, we provide a more stringent test of our theory by reducing the diversity of the team. We reduce the objective diversity of the diverse team by including two Caucasians, one Indian, and one African American member in the team. Per Blau’s (1977) heterogeneity index (i.e., \( 1-\sum i^2 \), where \( i \) is the proportion of the group in the \( i^{th} \) category) which is used to measure the diversity of a team (e.g., Knight et al. 1999), the diverse team in study 2A (heterogeneity score of .625) is less diverse than the diverse team used in study 1A (heterogeneity score of .750) and the diverse team in study 2B (heterogeneity score of .625) is less diverse than the diverse team used in study 1B (heterogeneity score of .750). The heterogeneity score of the homogeneous team is 0 in all our studies.

Finally, we rule out two alternative accounts for why homogeneous teams are perceived as more likely to engage in immoral behaviors. Prior research has shown that a physically similar group is perceived to be better coordinated (Dasgupta et al. 1999; Wai-man Ip et al. 2006). A more coordinated, homogeneous team may in turn be perceived as more capable of causing harm if it so desired, and hence may be perceived as less moral than a more diverse team. While it is not obvious why a more coordinated team would be seen as motivated to cause more harm (and hence as less moral) than more good, we measure the perception of coordination directly to address this possibility. Another potential alternative account relates to impression management. Prior research has shown that an individual is more likely to restrain from engaging in immoral behaviors then he or she is concerned about appearing moral to others (Aquino and Reed 2002; Boegershausen, Aquino, and Reed 2015; Janoff-Bulman, Sheikh, and Hepp 2009). Thus it is possible that members of diverse teams are perceived as being more moral because they are believed to be more concerned about maintaining their moral image rather than being perceived...
as better at perspective taking. In this study we measure perceptions of impression management to test whether it can explain the effect of diversity on perceived morality.

We begin by describing the design and results of study 2A and then detail the difference and results in study 2B.

**Study 2A Design and Procedure**

One hundred and eighty-one participants completed the study, of which 39 were excluded in line with our exclusion criteria. The final sample comprised of 142 U.S. residents recruited from MTurk for study 2A (43% female, \( M_{\text{Age}} = 36.10, \) SD = 9.51). Participants were randomly assigned to either a diverse or homogeneous team. In the diverse team, two of the four members were Caucasian, one was Indian, and one was African American (see Appendix L). The homogeneous team was the same as in study 1A.

Participants read an article about a fictitious technology firm facing allegations of violating the privacy of ex-customers, whom they continued to track through their GPS-based system, and for selling that information to third parties (see Appendix L). Participants then completed the following measures.

**Perceived Morality.** As before, we measured perceived moral traits of the team as well as its perceived likelihood of engaging in immoral behavior. Team’s moral traits was evaluated using the same traits as in study 1A (alpha = .94). A higher value on this scale reflects greater immorality. Likelihood of engaging in immoral behavior was evaluated by asking participants to indicate how likely they thought the team was to engage in four immoral behaviors: possessing knowledge about the data breach before the company was exposed; intentionally leaking the data; lying about their involvement in the data breach; and lying about their plans to fix the
problem (1 = very unlikely to 7 = very likely; alpha = .83). A higher value on this scale reflects greater likelihood of engaging in immoral behavior.

**Filler Items.** Next, participants evaluated the team on eight filler traits, measured on 7-point bipolar scales (i.e., unadventurous/adventurous, not alert/alert, lazy/energetic, messy/neat, unpolished/polished, irrational/rational, unrelaxed/relaxed, insane/sane; alpha = .78), and on its likelihood to engage in two filler behaviors (i.e., organize an office happy hour and water office plants; averaged together following Samper et al. 2017; 1 = very unlikely to 7 = very likely).

**Perceived Perspective Taking.** The perspective taking measure was the same as in studies 1A (alpha = .91).

**Coordination.** Coordination was measured using three items adapted from Dasgupta et al. (1999) and Wai-man Ip et al. (2006). The items measured how likely the members of the team are to share common goals, how collaborative the members of the team are, and how united the members of the team are (1 = very unlikely/not at all to 7 = very likely/very much; alpha = .86).

**Impression Management.** Impression management was measured using four items, adapted from Turnley and Bolino (2001). Participants were asked to indicate how accurately each of four statements described the team: The members of this team compliment their colleagues so they will see them as likeable; The members of this team take an interest in each other’s personal lives to show that they are friendly; The members of this team praise each other for their accomplishments to show that they are a nice person; The members of this team do personal favors for each other to show that they are friendly (1 = very inaccurate to 5 = very accurate; alpha = .75).

**Manipulation Checks.** Finally, participants completed the same manipulation checks as in study 1 and provided demographic information.
Study 2A Results

**Diversity Manipulation Check.** Results of an ANOVA confirmed that participants in the diverse condition, as compared to those in the homogeneous condition, perceived the team to be less similar in terms of race ($M_D = 2.57$, $SD_D = 1.17$ vs. $M_H = 6.80$, $SD_H = .54$; $F(1, 137) = 744.18, p < .001$, partial $\eta^2 = .845$, Cohen’s $d = 4.670$).

**Perceived Morality.** Participants in the diverse condition perceived the team to embody a higher level of moral traits compared to participants in the homogeneous condition, as indicated by lower scores in the diverse condition ($M_D = 4.88$, $SD_D = 1.33$ vs. $M_H = 5.43$, $SD_H = 1.20$; $F(1, 137) = 7.84, p < .01$, partial $\eta^2 = .054$, Cohen’s $d = .478$). Participants in the diverse condition also saw the team as less likely to engage in immoral behaviors ($M_D = 4.57$, $SD_D = 1.07$ vs. $M_H = 5.13$, $SD_H = 1.27$; $F(1, 137) = 8.92, p < .01$, partial $\eta^2 = .061$, Cohen’s $d = .510$). There was no difference between the diverse and homogeneous teams on the filler traits ($p = .268$, partial $\eta^2 < .010$, Cohen’s $d < .200$) or behaviors ($p = .762$, partial $\eta^2 < .001$, Cohen’s $d < .063$).

**Mediating Role of Perceived Perspective Taking on Perceived Morality.** To test our theorizing that perceived perspective taking mediates the effect of diversity on perceptions of a team’s morality, we conducted mediation analyses (Model 4, Hayes 2013) with each of the two morality measures (i.e., moral traits and immoral behavior). In each test, the diversity condition was included as the independent variable (1 = diverse, 0 = homogeneous), perceived perspective taking as the mediator, morality measure as the dependent variable, and participant gender, race, and political identity as covariates. Team diversity positively affected perceived perspective taking, indicating that members of a diverse teams were perceived as more capable of taking
each other’s perspective ($M_D = 3.69$, $SD_D = 1.05$ vs. $M_H = 3.23$, $SD_H = 1.14$; $F(1, 137) = 5.85$, $p = .017$, partial $\eta^2 = .041$, Cohen’s $d = .414$). Moreover, consistent with our theoretical account, perceptions of perspective taking mediated the effect of diversity on perceived moral traits (95% CI: [-.53, -.07]) as well as the effect of diversity of perceived likelihood of team’s engagement in immoral behaviors (95% CI: [-.43, -.05]). See table 7 for a summary.

Table 7. Summary of Mediation Analyses, Study 2A, Essay Two

<table>
<thead>
<tr>
<th>Mediating role of perceived perspective taking</th>
<th>Direct effect of team diversity</th>
<th>Indirect effect of team diversity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Moral traits</td>
<td>Immoral behaviors</td>
</tr>
<tr>
<td>Diversity</td>
<td>-77 (.22)***</td>
<td>-49 (.24) *</td>
</tr>
<tr>
<td>Diversity</td>
<td>Moral traits</td>
<td>Immoral behaviors</td>
</tr>
<tr>
<td>Diversity</td>
<td>-52 (.20)*</td>
<td>-24 (.22)</td>
</tr>
<tr>
<td>Perceived perspective taking</td>
<td>-57 (.09)***</td>
<td>-57 (.09)***</td>
</tr>
<tr>
<td>95% CI index of mediation</td>
<td>[-.53, -.04]</td>
<td>[-.52, -.04]</td>
</tr>
</tbody>
</table>

Note: For regression and mediation analyses, standard errors are in parentheses next to coefficients; *** $p < .001$; ** $p < .01$, * $p < .05$.

**Coordination and Impression Management.** Diverse and homogeneous teams were not seen as differing on coordination ($M_D = 5.29$, $SD_D = 1.08$ vs. $M_H = 5.12$, $SD_H = 1.10$; $F(1, 137) = .70$, $p = .406$, partial $\eta^2 = .005$, Cohen’s $d = .142$) or on impression management ($M_D = 3.21$, $SD_D = .70$ vs. $M_H = 3.18$, $SD_H = .73$; $F(1, 137) = .10$, $p = .749$, partial $\eta^2 = .001$, Cohen’s $d = .063$) suggesting that perceived coordination or impression management are unlikely to be the reason for the observed effect of diversity on moral perception of the team in the current context.
**Study 2B**

Instead of using all male teams as in study 2A, study 2B used teams of women in both in racially diverse and racially homogeneous conditions (see Appendix L). The article that participants read and the measures they responded to were identical to study 2A. Participants from MTurk completed study 2B. Of the 181 complete responses, 35 were excluded in line with our exclusion criteria. The final dataset comprised of 146 U.S. residents (55% female, $M_{Age} = 36.64, SD = 11.48$). The manipulation check confirmed that participants in the diverse condition perceived the team to be less similar in terms of race than participants in the homogeneous condition ($M_D = 3.19, SD_D = 1.48$ vs. $M_H = 6.66, SD_H = .56$; $F(1, 141) = 348.52, p < .001$, partial $\eta^2 = .712$, Cohen’s $d = .3.145$). The results replicated those of study 2A (see table 8). Once again, we found that the diverse team was perceived as having a higher level of moral traits and as less likely to engage in immoral behaviors, both mediated by greater perceived perspective taking among the diverse team. Further, the diverse and homogeneous teams did not differ in terms of filler traits, filler behaviors, perceived coordination, or perceived impression management.

**Discussion**

The studies so far demonstrate that observable diversity in a team affects its perceived morality by improving perceptions of perspective taking within the team. We show that the effect arises in all-male teams as well as all-female teams and is robust to reductions in the objective diversity of the team. Besides providing evidence for the proposed role of perspective taking, we also show that the effect of diversity on perceived morality is unlikely to be due to difference in perceived coordination and impression management concerns.
Table 8. Summary of Mean Comparison and Mediation Analyses, Study 2B, Essay Two

<table>
<thead>
<tr>
<th>Effect of diversity</th>
<th>Alpha</th>
<th>Diverse</th>
<th>Homogeneous</th>
<th>F(1,141)</th>
<th>p</th>
<th>Partial $\eta^2$</th>
<th>Cohen’s $d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral traits</td>
<td>0.95</td>
<td>4.57 (1.45)</td>
<td>5.14 (1.39)</td>
<td>6.03</td>
<td>0.015</td>
<td>0.041</td>
<td>0.414</td>
</tr>
<tr>
<td>Immoral behavior</td>
<td>0.77</td>
<td>4.51 (1.19)</td>
<td>4.94 (1.03)</td>
<td>5.30</td>
<td>0.023</td>
<td>0.036</td>
<td>0.386</td>
</tr>
<tr>
<td>Filler traits</td>
<td>0.90</td>
<td>4.86 (1.14)</td>
<td>4.82 (1.26)</td>
<td>0.25</td>
<td>0.615</td>
<td>0.002</td>
<td>0.090</td>
</tr>
<tr>
<td>Filler behaviors</td>
<td>N/A</td>
<td>4.24 (1.39)</td>
<td>4.23 (1.29)</td>
<td>0.01</td>
<td>0.919</td>
<td>&lt;0.001</td>
<td>&lt;0.063</td>
</tr>
<tr>
<td>Perceived coordination</td>
<td>0.87</td>
<td>5.19 (1.18)</td>
<td>5.42 (1.10)</td>
<td>1.07</td>
<td>0.302</td>
<td>0.008</td>
<td>0.180</td>
</tr>
<tr>
<td>Perceived impression management</td>
<td>0.84</td>
<td>3.52 (0.71)</td>
<td>3.45 (0.80)</td>
<td>0.37</td>
<td>0.543</td>
<td>0.003</td>
<td>0.110</td>
</tr>
</tbody>
</table>

Mediating role of perspective taking

<table>
<thead>
<tr>
<th>Direct effect of team diversity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral traits</td>
</tr>
<tr>
<td>Diversity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indirect effect of team diversity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral traits</td>
</tr>
<tr>
<td>Diversity</td>
</tr>
<tr>
<td>Perceived perspective taking</td>
</tr>
<tr>
<td>95% CI index of mediation</td>
</tr>
</tbody>
</table>

Note: For regression and mediation analyses, standard errors are in parentheses next to coefficients; ***p < .001; **p < .01, *p < .05

Study 3: Product Failure at The Honest Company

So far, we have tested the role of team diversity in consumers’ impressions of a team. In this study we examine whether the effect of team diversity on perceived morality generalizes
beyond the team as an entity to the leader of the team. That is, we focus on impressions of the same team leader across diverse and homogeneous teams. This design allows us to address concerns about perceptions of morality of a team being driven by perceptions of any individual team member. Prior research suggests that when evaluating teams, especially similar teams, it is possible for judges to form a perception of a single member of the team and then transfer that opinion across all members of the team (e.g., Crawford, Sherman, and Hamilton 2002). By requiring participants to focus on and evaluate the same person in both the diverse and homogeneous teams, manipulating only the diversity of the team surrounding the focal person, we provide a more robust test of the impact of diversity. In the current study we also extend the findings to a different context. Frequently, a team leader is the voice and face of a firm as the firm attempts to alleviate consumer concerns around its moral transgression. As an example, we base our scenario on the Honest Company, which was alleged to have misled consumers about the ingredients used in their products. In this study, we establish that the diversity of a team can impact moral impressions of a leader in such transgressive contexts. We further examine the leader’s moral perception on consumers’ attitudes toward the firm as well as their purchase intent following a moral transgression.

**Design and Procedure**

Of the 189 participants who completed this study, 52 were excluded in line with our exclusion criteria. The final sample comprised of 137 U.S. residents (54.7% female, $M_{Age} = 37.13$, SD = 10.37) who were recruited on MTurk. Participants were randomly assigned to either a diverse or homogeneous team. The team members were the same as in study 1A, but were accompanied by a fifth person, the CEO, who was described to be the leader. The CEO was the
same in both conditions. Per Blau’s heterogeneity index, the diverse team (four members and one leader) had a heterogeneity index of .720.

We used a scenario where participants read a fictitious article about The Honest Company, which was founded on the principle of using organic, safe, non-toxic ingredients in all their products to ensure safety for children and their families. The Honest Company has been accused on various occasions of using harmful, chemical ingredients in laundry detergent and dish soap (Gunlock 2015) and selling ineffective sunscreen (Horowitz 2017). The article also reported that The Honest Company was now facing allegations of including harmful, rash-inducing ingredients in their baby powder. The article was accompanied by a picture of the current CEO of the Honest Company, Nick Vlahos, and a fictitious research and development team, which was either racially diverse or homogeneous depending on the condition (the same teams as in study 1A; see Appendix M).

After reading the article, participants indicated how responsible they perceived the Honest Company to be for the harmful side effects and how likely they were to purchase products from the company in the future. Participants also indicated how likely they thought the CEO was to engage in six immoral behaviors: approving the use of inorganic and harmful ingredients; knowing that the research and development team was testing and using inorganic and harmful ingredients; knowingly approving the testing of products containing harmful ingredients; knowingly selling harmful products; being at fault for the harmful side effects of using inorganic and harmful ingredients; being deserving of blame for the harmful side effects; 1 = not at all to 7 = very much). The six items loaded on a single factor and were therefore averaged together (alpha = .92). Participants also completed the same measures of moral traits
(alpha = .96), filler traits (alpha = .85), and perceived perspective taking (alpha = .90) as in study 2A, but only as they pertained to the CEO.

Finally, participants completed the same manipulation checks and provided demographic information.

Results and Discussion

**Diversity Manipulation Check.** Results of an ANOVA confirmed that participants in the diverse condition perceived the team (including the CEO) to be less similar in terms of race ($M_D = 2.07$, $SD_D = 1.39$ vs. $M_H = 6.00$, $SD_H = 1.23$; $F(1, 132) = 297.51$, $p < .001$, partial $\eta^2 = .693$, Cohen’s $d = 3.005$).

**CEO’s Perceived Morality.** As expected, compared to the homogeneous condition, participants in the diverse condition perceived the CEO to embody moral traits to a greater extent, as indicated by lower scores ($M_D = 4.16$, $SD_D = 1.35$ vs. $M_H = 4.92$, $SD_H = 1.31$; $F(1, 132) = 11.66$, $p < .01$, partial $\eta^2 = .081$, Cohen’s $d = .594$), and as less likely to engage in immoral behaviors ($M_D = 4.40$, $SD_D = 1.23$ vs. $M_H = 5.19$, $SD_H = 1.13$; $F(1, 132) = 15.57$, $p < .001$, partial $\eta^2 = .106$, Cohen’s $d = .689$). There was no observed difference between conditions for filler traits ($p = .205$, partial $\eta^2 = .012$, Cohen’s $d = .220$).

**Mediating Role of Perceived Perspective Taking on Perceived Morality.** In line with our theorizing and findings in previous studies, we predicted that perceived perspective taking should mediate the effect of team diversity on perceptions of the CEO’s morality. To test this, we conducted mediation analysis (Model 4, Hayes 2013) with each of the two morality measures (i.e., moral traits and immoral behavior). In each test, the diversity condition was included as the independent variable ($1 = \text{diverse}, 0 = \text{homogeneous}$), perspective taking as the mediator,
measure of the CEO’s morality as the dependent variable, and participant gender, race, and political identity as covariates. The CEO was perceived to be better at perspective taking in the diverse condition than in the homogeneous condition ($M_D = 3.92$, $SD_D = 1.02$ vs. $M_H = 3.30$, $SD_H = 1.18$; $F(1, 132) = 10.89$, $p < .001$, partial $\eta^2 = .068$, Cohen’s $d = .540$). Further, perceptions of perspective taking mediated the effect of diversity on both CEO’s moral traits (CI: [-.72, -.17]) and immoral behaviors (CI: [-.47, -.10]), consistent with our theoretical account.

**Consumer Response to Perceived Morality.** To measure downstream benefits of greater morality perception, we measured participants’ attitudes towards the firm as well as their purchase intent. Participants in the diverse condition held Honest Company marginally less responsible for the use of harmful products ($M_D = 5.51$, $SD_D = 1.36$ vs. $M_H = 5.90$, $SD_H = 1.09$; $F(1, 132) = 2.94$, $p = .089$, partial $\eta^2 = .022$, Cohen’s $d = .300$), and were more likely to purchase items from it than participants in the homogeneous condition ($M_D = 3.35$, $SD_D = 1.62$ vs. $M_H = 2.71$, $SD_H = 1.66$; $F(1, 132) = 4.53$, $p = .035$, partial $\eta^2 = .033$, Cohen’s $d = .369$).

**Serial Mediation Role of Perceived Perspective Taking and Perceived Morality on Consumer Response to Perceived Morality.** To test our theoretical account that perceptions of morality impact consumers’ attitudes and behaviors, we test whether perceived perspective taking and perceived morality serially mediate the impact of team diversity on consumers’ attitudes toward the firm and intent to purchase (Model 6, Hayes 2013). In each test, the diversity condition was included as the independent variable (1 = diverse, 0 = homogeneous), perceived perspective taking as the first mediator, morality measure (moral traits or immoral behavior) as the second mediator, and consumer attitudes and behaviors (attitudes toward the firm and intent to purchase) as the dependent variable. Consistent with our theoretical account, attitude toward the firm was serially mediated by perceptions of perspective taking and perceptions of morality,
both in terms of moral traits (95% CI: [-.32, -.05]) and immoral behaviors (95% CI: [-.23, -.04]).

Purchase intent was similarly serially mediated by perceptions of perspective taking and perceptions of morality, both in terms of moral traits (95% CI: [.11, .56]) and immoral behaviors (95% CI: [.02, .20]). See table 9 for a summary.

Table 9. Summary of Mean Comparison and Serial Mediation Analyses, Study 3, Essay Two

<table>
<thead>
<tr>
<th>Mediating role of perceived perspective taking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct effect of team diversity</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Diversity</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Moral traits of CEO</td>
</tr>
<tr>
<td>.76 (.23)**</td>
</tr>
<tr>
<td>Immoral behaviors of CEO</td>
</tr>
<tr>
<td>.78 (.20)**</td>
</tr>
<tr>
<td>Perceived perspective taking</td>
</tr>
<tr>
<td>.60 (.19)**</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Indirect effect of team diversity</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Diversity</td>
</tr>
<tr>
<td>-.35 (.20)</td>
</tr>
<tr>
<td>Perceived perspective taking</td>
</tr>
<tr>
<td>-.69 (.09)**</td>
</tr>
<tr>
<td>95% CI index of mediation</td>
</tr>
<tr>
<td>[.72, .17]</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<p>| Serially mediating role of perceived perspective taking and morality on expected performance |</p>
<table>
<thead>
<tr>
<th>DV = Attitude toward the firm</th>
<th>DV = Purchase intent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversity</td>
<td>.01 (.19)</td>
</tr>
<tr>
<td>.05 (.19)</td>
<td>.02 (.23)</td>
</tr>
<tr>
<td>.04 (.27)</td>
<td></td>
</tr>
<tr>
<td>Perceived perspective taking</td>
<td>-.09 (.10)</td>
</tr>
<tr>
<td>-.17 (.09)</td>
<td>.11 (.12)</td>
</tr>
<tr>
<td>.46 (.12)**</td>
<td></td>
</tr>
<tr>
<td>Perceived morality</td>
<td>.41 (.09)**</td>
</tr>
<tr>
<td>.49 (.08)**</td>
<td>-.74 (.10)**</td>
</tr>
<tr>
<td>-.38 (.12)**</td>
<td></td>
</tr>
<tr>
<td>95% CI index of serial mediation</td>
<td>[-.32, -.05]</td>
</tr>
</tbody>
</table>

Note: For regression and mediation analyses, standard errors are in parentheses next to coefficients; ***p < .001; **p < .01, * p< .05, ^p <.10

This study demonstrates the generalizability of the effect to the team leader and the context of brand transgressions. In addition to providing triangulating evidence for our proposed effect and the theoretical process, the study also renders a useful insight on how firms can
manage brand transgressions and product or service failures by managing diversity in teams facing the consumers.

**Study 4: Corporate Social Responsibility at Walmart**

Thus far, we have examined how team diversity impacts judgments of a team’s morality by focusing on racial diversity. In study 4 we extend these findings to another form of diversity within a minority race. Doing so is important to disentangle the effect of diversity from a possible effect of a specific race. Specifically, in all the studies thus far the homogeneous team was always made up of Caucasian members. Hence it is possible that the results limited to this group and can be further explained by any stereotypes people may have Caucasians. To address this point, in the current study look at gender diversity within teams of African Americans. Another goal of study 4 is to shed more light on why perspective taking leads to improved perception of morality. We proposed that diversity in a team results in perceptions of broader perspectives existing within the team. A wider breadth of perspectives in turn generates the perception of perspective taking in a diverse team. In study 4 we provide empirical evidence of this theoretical explanation by testing whether the impact of diversity on judgments of morality is serially mediated by perception of perspective breadth within a team, which we expect to increase perspective taking.

**Design and Procedure**

In this study, we precluded participants from related studies and those who failed an attention check required to enter the study. Of the 147 participants who completed the study, 10 were excluded in line with our exclusion criteria. Because previous participants and those not
paying attention were precluded from the study, the exclusion rate is expectedly lower. Further, this study and detailed exclusion criteria were preregistered on AsPredicted.org\(^1\). The final sample comprised of 137 U.S. residents recruited on MTurk (46% female, \(M_{\text{Age}} = 36.74, \ SD = 11.10\)). Participants were randomly assigned to one of two conditions: a diverse team comprised of two African American males and two African American females (heterogeneity index = .50) or a homogeneous team of four African American males (heterogeneity index = 0; see Appendix N). As before, pretests confirmed that each member of the diverse team did not differ from their counterpart on the homogeneous team in terms of morality, attractiveness, friendliness, or likeability (see Appendix N).

Participants were asked to read an article about Walmart. The article stated that shortly after Valentine’s Day, speculations arose about Walmart’s knowledge of the child labor used to produce some of the chocolate sold at Walmart. The team shown in the article was described as the Ethics and Compliance Team at Walmart. The article went on to detail that the team had issued a statement saying that if child labor was used, it was done without Walmart’s knowledge or approval, and pointed to Walmart’s recent reports on environmental and social governance.

After reading the article, participants completed a four-item measure of breadth of perspectives, which we developed. In this measure, participants indicated their agreement with four statements: this team has a broad perspective overall; this team has an inclusive perspective overall; this team incorporates more perspectives in its decision-making; and this team’s perspectives are inclusive of the perspectives of people outside of the team (1 = strongly disagree to 7 = strongly agree; alpha = .87). A higher value on this scale reflects a broader perspective.

\(^1\) Preregistration can be found at https://aspredicted.org/blind.php?x=9534vp
Participants then completed the measures of perceived perspective taking (alpha = .85) and moral traits (alpha = .96) used in study 1A. Finally, participants completed a manipulation check and provided demographic information.

Results

**Diversity Manipulation Check.** Participants in the diverse condition, as compared to those in the homogeneous condition, perceived the team to be less similar in terms of gender ($M_D = 3.67, SD_D = 1.39$ vs. $M_H = 6.37, SD_H = 1.27$; $F(1, 132) = 142.82, p < .001$, partial $\eta^2 = .520$, Cohen’s $d = 2.082$).

**Perceived Morality.** As anticipated, the results revealed that participants perceived the diverse team to embody moral traits to a greater extent than the homogeneous team, as indicated by lower scores ($M_D = 3.00, SD_D = 1.38$ vs. $M_H = 3.56, SD_H = 1.62$; $F(1, 132) = 4.59, p = .034$, partial $\eta^2 = .034$, Cohen’s $d = .375$).

**Mediating Role of Perspective Breadth and Perceived Perspective Taking.** Our theorizing predicts that perceptions of broader perspectives existing within a diverse team increase perceptions of perspective taking. To test this prediction, we conducted a serial mediation (Model 6, Hayes 2013). In this test, team diversity condition was entered as the independent variable, perspective breadth was entered as the first mediator, perceived perspective taking was entered as the second mediator, and moral traits was included as the dependent variable. Participant gender, race, and political identity were included as covariates.

Team diversity positively affected both perspective breadth ($M_D = 4.81, SD_D = 1.08$ vs. $M_H = 4.35, SD_H = 1.33$; $F(1, 132) = 5.57, p = .020$, partial $\eta^2 = .040$, Cohen’s $d = .408$) and perceived perspective taking ($M_D = 4.82, SD_D = .89$ vs. $M_H = 4.39, SD_H = 1.10$; $F(1, 132) = 5.75,$
that $p = .018$, partial $\eta^2 = .042$, Cohen’s $d = .419$). Consistent with our theoretical account for serial mediation, perceived perspective breadth and perceived perspective taking serially mediated the effect of diversity on perceived moral traits (95% CI: [-.38, -.02]). To confirm the order of mediation, we reversed the order of the two mediators (i.e., perspective breadth and perceived perspective taking) and found that the reversed pathway did not serially mediate the effect of diversity on morality judgments (95% CI: [-.18, .002]). These results conclude that perceptions of a broader perspective existing within a team result in perceptions of greater perspective taking in a diverse group. See table 10 for a summary.

Table 10. Summary of Serial Mediation Analysis, Study 4, Essay Two

<table>
<thead>
<tr>
<th>Serially mediated effect of team diversity</th>
<th>Direct effect of team diversity</th>
<th>Perceived perspective breadth</th>
<th>Perceived perspective taking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity</td>
<td>- .59 (.25)*</td>
<td>.46 (.21)*</td>
<td>.43 (.17)*</td>
</tr>
</tbody>
</table>

Indirect effect of team diversity through perceived perspective breadth

| Diversity                                | -.33 (.23)                        | .21 (.14)                     |
| Perceived perspective breadth            | -.57 (.09)***                     | .48 (.06)**                   |

Indirect effect of team diversity through perceived perspective taking

| Diversity                                | -.23 (.22)                        |                            |
| Perceived perspective taking             | -.83 (.11)***                     |                            |

Serially mediating role of perceived perspective breadth and perceived perspective taking

| Diversity                                | -.19 (.21)                        |                            |
| Perceived perspective breadth            | -.26 (.11)*                       |                            |
| Perceived perspective taking             | -.65 (.13)***                     |                            |

95% CI index of serial mediation

| Diversity                                | [-.38, -.02]                      |                            |

Note: Standard errors are in parentheses next to coefficients; *** $p < .001$; ** $p < .01$, * $p < .05$
Discussion

Study 4 replicated the effect of team diversity on perception of its morality. The study generalized the effect of racial diversity observed in studies 1-3 to gender diversity. Furthermore, we generalized to a context where it was not clear that the company has transgressed or not. Finally, we provided evidence for our theoretical account of why diversity results in greater perception of perspective taking, which in turn leads to the perception of morality. We proposed, and found, that diversity affects perceptions of perspective taking by resulting in perceptions of broader perspectives existing within the team.

General Discussion

Consumers frequently have to make judgments of a firm’s moral lapses and the likelihood of future transgressions. Faced with wrongdoings, a firm typically addresses the issues using a team that represents the organization publicly. We find that the composition of the team impacts consumer perceptions of the firm. As compared to homogenous teams, diverse teams are more effective in alleviating consumers’ concerns about a firm’s ethical policies. The presence of diversity in a team leads to inferences of more refined perspective taking within the firm and therefore of more principled behavior towards consumers. We also find the constitution of the team can guide consumer behavior.

We demonstrate that teams that are diverse in terms of race (pilots A-B, studies 1A-3), gender (pilots A-B, study 4), and nationality (pilot C) are perceived to engage in fewer immoral behaviors (pilots A-C, studies 1A-3), embody immoral traits to a lesser extent (studies 1A-4), and be more morally expansive (studies 1A and 1B) than homogenous teams. We find that this effect is mediated by perceptions of perspective taking, such that diverse teams are perceived to
engage in more perspective taking than homogenous teams, and serially mediated by broadening perspectives, such that diverse teams are perceived as having broader perspectives, which in turn increase perceived perspective taking within the team. We also rule out coordination and impression management as alternative explanations. We find that the effect of team diversity on judgments of a team’s moral character are consistent across multiple domains including information markets (e.g., news sources), services (e.g., telecommunications), household goods (e.g., detergent, lotion), charitable organizations, corporate social responsibility, and in both B2C and B2B scenarios.

**Theoretical Contributions**

We make several theoretical contributions. First, to the best of our knowledge, this is the first article that examines how group characteristics impact consumer perceptions. Second, we contribute to the literature that investigates how judgments of morality are formed. Past literature has identified individual or situational characteristics that impact perceptions of moral character, such as an individual’s behavior, exposure to others’ immoral behavior, or objectification of others (Gino, Ayal, and Ariely 2009; Gino and Galinsky 2012; Heflick et al. 2011; Reynolds 2008; Reynolds and Ceranic 2009; Wojciszke 2005). We add to this literature by identifying group characteristics that serve as cues of moral behavior.

Third, we contribute to the diversity literature in two ways: identifying the process underlying the formation of morality judgments of a team and demonstrating that non-members can use observed diversity to form perceptions of perspective taking within a team. Prior research on diversity shows that physical and psychological diversity impact team coordination, creativity, and performance (Hoever et al. 2012; Pelled et al. 1999; West 2002), but has not
examined how diversity impacts morality judgments. In filling this gap, we examine the underlying process and find that diversity increases perceptions of perspective taking within a team. Prior work on perspective taking has exclusively examined self-reported or manipulated perspective taking, but not whether consumers form impressions of perspective taking among groups of people. We therefore contribute to the perspective taking literature by demonstrating that consumers can perceive perspective taking within a team, even when they are not a member of that team. Finally, we add to the marketing literature on how marketing actions impact ethical judgments. Research on corporate social responsibility (CSR) demonstrates that firms seek to create perceptions of themselves as good citizens (e.g., Du et al. 2011; Hildebrand, Sen, and Bhattacharya 2011). This research has largely focused on how CSR initiatives can be best leveraged to create positive perceptions of a firm’s ethical character (Luo and Bhattacharya 2009). Cultivating such an image improves consumer sentiment and firm value (Luo and Bhattacharya 2006). Our findings suggest that the composition of a team can underscore a firm’s effort to reinforce these perceptions.

**Directions for Future Research**

Our findings generate several opportunities for further research. First, it will be managerially useful to understand which cues of diversity – gender, race, or nationality – more strongly influence impressions of a team. Second, there are several other characteristics that indicate diversity. In our studies, we examine the role of diversity based on gender, race, and nationality, but did not test other physical characteristics such as age. Relatedly, future research could examine whether unobservable characteristics, such as educational background or tenure at
the firm, influence perceptions of diversity and morality judgments. It is an empirical question whether unobservable, psychological diversity is salient to consumers, and whether it impacts judgments of the team. Third, scholars can determine whether the diversity of a team can impact not only morality judgments, but also judgments of competence and warmth, which have been shown to influence consumer behavior (Kirmani et al. 2017).

Next, future research should also identify the limits of the effect of diversity by altering the size of the team or manipulating task characteristics. By increasing the size of the team, it will be possible to determine the impact of different levels of diversity within the team and also identify when the impact of a team’s diversity on consumer judgments is attenuated. Our studies examine teams of four or five people. With a team of ten people, heterogeneity index values for diverse teams can range from .18 (e.g., nine white males, and one Indian male) to .9 (e.g., all members of different race and gender combinations). In contrast, the heterogeneity index values of the diverse teams in our studies range from .50 to .75. It is possible that a very large homogenous team may be perceived to be as moral as a team with a low level of diversity.

**Managerial Implications**

Our findings carry important implications for how firms and managers design their teams, especially teams that are the face of the firm to important stakeholders. Anecdotal evidence indicates that consumer react negatively to the lack of diversity. There has been widespread criticism about the absence of diversity on magazine covers, teams of news channel anchors, television show and movie casts, members of political campaigns, and in the workplace. Consequently, activists and moviegoers alike spoke out against the lack of diversity in Hollywood, citing the need for diverse and relatable characters and actors on screen (Gay 2016).
Similar concerns regarding the lack of representation of minorities in some news channels and political campaigns have highlighted the homogeneity of information sources (Bell 2017; Farhi 2015). Although large and small firms like McKinsey and Co. strive for and boast the diversity of their workforce in press releases and investor reports, a lack of diversity in the workforce has raised concerns about firms like Google (Donnelly 2017; McKinsey and Co. 2018).

Our findings suggest that consumers’ concerns about a lack of diversity may be embedded in a lack of perspective taking among members at the team, and that these concerns can be alleviated in two ways. First, firms may publicize the diversity of their workforce. While a firm’s leadership team is often the face of the firm, incorporating information about the diversity of a team of workers in press releases and news articles (e.g., study 3) can improve consumers’ perceptions of the firm as a whole. Second, managers should create and market diverse teams when dealing with sensitive information or tasks. For example, we find that consumers perceive sensitive situations like downsizing a firm (pilot B), raising money for a natural disaster (pilot B), or responding to allegations of child labor (study 4) to be better served by diverse teams.
ESSAY THREE: How Spouse’s Attractiveness Impacts Judgments of Morality

Introduction

The spouses and romantic partners of CEOs, politicians, and celebrities are often in the public eye themselves. For example, Melinda Gates, Priscilla Chan, and Miranda Kerr are as well-known as their spouses. Additionally, several service providers and retailers (e.g., financial advisors, contractors, automobile dealers) routinely feature their spouses in their professional profiles and commercial messages. How does the beauty of the significant other impact perceptions of the focal person?

A large body of person perception literature has investigated how the attractiveness of a focal person impacts how they are perceived (for a review see Eagly et al. 1991). This work largely concludes that “what looks good must be good” (Dion, Bercheid, and Walster 1972). In contrast to the literature on how own-beauty influences others’ judgments, the present research addresses how the attractiveness of a spouse or romantic partner impacts perceptions of the focal person. Research in consumer behavior has highlighted how preferences or possessions can be used as basis to judge a person’s values and characteristics (e.g., Brough et al. 2016; Warren and Campbell 2014). In comparison to possessions, the choice of a spouse or significant other represents a foundational and highly consequential long-term decision that could potentially shape the essence of an individual. In selecting a romantic partner, an individual enters a lifelong contract with another, who presumably embodies traits and values that the individual values most. A spouse should, therefore, act as a signal of an individual’s core traits. In the current research, we address how the attractiveness of a spouse impacts judgments of communality, specifically perceptions of morality.
We select morality for both theoretical and substantive reasons. Morality traits contribute to communality judgments while competence traits contribute to agency judgments. Research on judgment formation suggests that forming morality judgments is more natural than forming competence judgments (Wojciszke et al. 1998). The prioritization of morality traits over competence traits is based in the approach-avoidance tendencies that guide evolutionary biology (Schwarz and Clore 1983). People approach animals, people, and objects that may benefit them and avoid those that may cause harm. Morality traits become more important than competence traits in this regard, because another person’s immorality carries greater downside and risk than another person’s incompetence (Haidt, Koller, and Dias 1993; Wojciszke et al. 1998). People follow a two-step process of judging others: they first evaluate the morality traits and communality of another person to form a general impression, and then use evaluations of competence as a modifier (Wojciszke et al. 1998). Communality judgments therefore precede agency judgments and are formed more naturally and easily.

Substantively, elements of morality (e.g., honesty, ethicality, trustworthiness) are among the most important dimensions on which consumers evaluate service providers and leaders, and predicts repurchase intentions, word of mouth behavior, loyalty, and satisfaction increase (Harris and Goode 2004; Palmatier et al. 2006; Sirdeshmukh, Singh, and Sabol 2002). Morality judgments prompt approach tendencies (as opposed to avoidance tendencies; Peeters 2001) and carry more weight in affective and behavioral reactions (e.g., Cacioppo, Gardner, and Berntson 1997; Huston and Levinger 1978; Tsai and Huang 2002).

We draw from the literatures on entitativity (e.g., Campbell 1958; McConnell, Sherman, and Hamilton 1997) and Social Exchange Theory (e.g., Blau 1964; Homans 1958; Sprecher 1989) to formulate predictions on the inferences consumers make based on the attractiveness of
spouses. In doing so, we make several contributions to the literature. First, we contribute to the person perception literature by demonstrating that judgments about a focal person’s traits can be formed not only by their own beauty but also based on the attractiveness of their significant other. Second, we explicate why an associated person’s physical attractiveness can be detrimental to perceptions of a focal person, contrasting the general body of literature that claims “what’s beautiful is good” (Dion et al. 1972). Third, we contribute to the literature on entitativity, which has so far postulated that similarity of group members’ physical characteristics implies psychological similarity. We identify contexts where physical dissimilarity can indicate a high level of psychological similarity with respect to shared values.

In the remainder of the article, we first briefly review the literatures on person perception. Then, using findings from research on entitativity and Social Exchange Theory (SET), we develop our hypotheses on how judgments of a spouse or significant other influence perceptions of the pair’s relationship strength and subsequently of the focal person’s morality. We next describe five studies conducted to test our hypotheses. These studies demonstrate that males with unattractive spouses are perceived to be in a stronger relationship and consequently judged to be more moral than those with an attractive spouse. We conclude with a discussion of the theoretical and practical implications of the findings.

**Beauty and Signaling**

The literature on person perception concludes that, in general, beautiful people reap more benefits from society than unattractive people. First, good-looking people are evaluated more favorably: attractive people are perceived to have more socially desirable and communal personalities, greater interpersonal competence, higher occupational status and success, and
happier lives (Dion et al. 1972). Second, attractive individuals are treated more favorably than unattractive people. For example, male participants rate a written article to be of higher quality when the author is an attractive woman as opposed to an unattractive woman (Langlois et al. 2000). Attractive people are preferred in hiring and promotion decisions as well (Hosoda, Stone-Romero, and Coats 2003). Third, attractive people have more favorable self-perceptions than unattractive people. Mobius and Rosenblat (2006) find that attractive workers exude more confidence in their ability, demonstrate greater ability, and have better oral skills. Finally, attractive people enjoy better physical and mental health than unattractive people (Dion et al. 1972). Despite the breadth of these findings, they largely focus on the effects of a target person’s own beauty, not the beauty of people associated with a target person.

The beauty of people associated with a target person is important to consider for two reasons. First, who a target associates with is the target’s independent choice (Anderson, Adams, and Plaut 2008). Judges draw inferences about a target based on their friends, family (Govern and Greco 2002), possessions (Brough et al. 2016; Warren and Campbell 2014), and even their pets (Mae et al. 2004). Thus, an elemental decision like the choice of a spouse should influence perceptions of a focal person because “choosing a relationship partner is an act of self-determination and personal expression” (Anderson et al. 2008, 354).

Second, the choice of a spouse reflects the prioritization of resources exchanged in the marriage. Historically and conceptually, couples exchange physical attractiveness, wealth, and social status in a marriage (Blau 1964). In the 1960’s, scholars started studying marriage mobility, which reflected how women were able to marry men of higher socio-economic status than themselves (e.g., Elder 1969, Taylor and Glenn 1976). Elder (1969) found that physically attractive women more often married a man of greater wealth and social status than physically
unattractive women, regardless of level of education. Taylor and Glenn (1976) consider the socio-economic status of women prior to marriage, and find that physical attractiveness enables women of low socio-economic status, such as a farmer’s daughter, to marry a wealthier man. However, physical attractiveness does not greatly alter the marriage prospects of women of high socio-economic status. More recently, scholars have found that the same pattern holds true for perceptions of a marriage between a beautiful woman and an unattractive man. For instance, a beautiful woman is assumed to marry a less-attractive man for his wealth or social status (e.g., Baumeister and Vohs 2004), reflecting the husband’s prioritization of physical attractiveness, and the wife’s prioritization of wealth or social status.

To the best of our knowledge, only one article has examined how the beauty of a spouse may impact perceptions of a focal person. Sigall and Landy (1973) consider how a spouse’s physical appearance impacts perceptions of a focal person’s competence (operationalized through intelligence and confidence). An attractive wife signals that her husband is intelligent and confident, and thus more competent (Sigall and Landy 1973). However, scholars have yet to consider how a spouse’s attractiveness (or unattractiveness) may impact morality judgments of a focal person. Because morality traits are an essential element of communality judgments, evaluations of morality traits require an understanding of a target person’s interpersonal relationships, and cannot be formed on the basis of physical appearance alone. In understanding how these associations are made and how judges form impressions of morality, we examine the literatures on entitativity and social exchange theory.

**Judgment Formation and Entitativity**

Entitativity is defined as the cohesiveness and unity of a social group, such as a sports team, work group, or family (Campbell 1958; McConnell et al. 1997). Entitativity is a perceptual
construct, in that it reflects an outsider’s view of a group of people, not a group member’s evaluation of the group they subscribe to, and varies along a continuum ranging from low to high. For example, members of a professional sports teams are expected to have a high level of entitativity, people in line at a bank are expected to have a low level of entitativity, and coworkers working on a project together are expected to have a moderate level of entitativity (Lickel et al. 2000).

There are two primary questions that guide entitativity research. The first relates to how judgments of entitativity are formed. When gauging the entitativity of a group, judges may consider fixed characteristics or dynamic processes underlying the relationship (Wai-man Ip et al. 2006). Fixed characteristics are overt physical features that are immediately observable, such as skin color (Dasgupta et al. 1999; Smith, Faro, and Burson 2013; Wai-man Ip et al. 2006), facial features (Dasgupta et al. 1999), and the proximity of group members (Campbell 1958). For instance, Dasgupta and colleagues (1999) find that a group of five fictional characters that are all the same color (i.e., green) are perceived to be more entitative than five fictional characters that are each a different color (i.e., green, blue, red, yellow, and purple). Dynamic processes underlying the relationship include the behavior, movement patterns, interdependence, and common goals and attitudes of the group members (Wai-man Ip et al. 2006). For example, a group of butterflies that flies across a computer screen in the same direction is perceived to be more entitative than a group of butterflies that flies in different directions (Smith et al. 2013).

The second question that guides entitativity research is how inferences drawn about entitative groups differ from inferences drawn about non-entitative groups. Members of entitative groups are judged as a single unit, and information about the group is processed in the same manner as information about a single person (McConnell et al. 1997). Inferred traits about
the group as a whole are generalized and transferred to individuals in the group (Crawford et al. 2002). As a result, entitative groups are expected to be better synced, more organized (Wai-man Ip et al. 2006), and able to take collective action (Abelson et al. 1998; Dasgupta et al. 1999). For example, Dasgupta et al. (1999) consider how much harm a group of physically similar (vs. dissimilar) fictional characters (species G) could cause another fictional species (species H). When the group of species G was physically similar (vs. dissimilar), the group appeared more entitative and was expected to be more organized, collectively act against, and harm species H.

Opposite to entitative groups, non-entitative groups are considered a collection of disjoint individuals. Judgments about each member are formed independently of judgments of the group or judgments of other members (Crawford et al. 2002).

In investigating these questions, research on entitativity finds that different cues of entitativity (i.e., fixed characteristics vs. dynamic processes) have different implications for perceptions of a group. When group members share physical similarities, the group is entitative in terms of fixed characteristics, and is perceived to be psychologically similar as well (Dasgupta et al. 1999). The association between physical and psychological similarity is based on immediately available information, and the judgment is thus made quickly (Dasgupta et al. 1999; Wai-man Ip et al. 2006).

While the bulk of the literature focuses on implications of fixed characteristics, a small portion of the literature considers dynamic processes as a cue for entitativity. Identifying and evaluating dynamic processes is a deliberative process that requires processing available information, such as observations of movement patterns and member behaviors, and making inferences about the group’s common goals and attitudes based on that information. When members of a group move and behave similarly, they are inferred to share a common goal (Wai-
man Ip et al. 2006). For example, participants perceived a group of cartoon characters moving together to share a common goal, but were unable to explain the actions of a group of cartoon characters moving in scattered patterns (Wai-man Ip et al. 2006). Inferences based on dynamic process cues (i.e., similar movement patterns; $r_{\text{dynamic}} = .70$) are more strongly correlated with entitativity judgments than inferences based on fixed characteristic cues (i.e., skin color; $r_{\text{fixed}} = .44$; Wai-man Ip et al. 2006). Thus, judgments made about entititative groups are strengthened when those judgments are based on dynamic processes. For example, the group of cartoon characters is considered more entitative when the characters move in a similar pattern, regardless of skin color, than when the characters move in disorganized patterns (Wai-man Ip et al. 2006). Additionally, these judgments are held with greater confidence (Smith et al. 2013).

When viewing a married couple, physical attractiveness is one immediately observable fixed characteristic that entitativity judgments can be based on. There are three different combinations of a married couple’s relative attractiveness: (a) a physically similar couple, in which both people are equally attractive, (b) when the wife is more attractive than the husband, and (c) when the husband is more attractive than the wife. The first combination - two equally attractive people - is consistent with extant entitativity theory. When both individuals in a relationship are similarly attractive, they indicate entitativity through fixed characteristics, and are likely perceived to be psychologically similar.

In the second and third cases, the couple exhibits dissimilarity in their fixed characteristics but are clearly entitative at a core level. The presence of an underlying reason for their bonding encourages judges to search for a connection within members of this group (Yzerbyt, Corneille, and Estrada 2001). We contend that when there is no observable justification for a mismatched couple’s relationship, judges analyze dynamic processes (i.e.,
common goals and values) to justify the relationship. We now turn to Social Exchange Theory (SET), to examine how judges resolve the discrepancy between a couple that differs on fixed characteristics, but still may be similar in dynamic processes.

**Social Exchange Theory and Perceived Relationship Strength**

Relationships are perceived to be either communal or exchange-based (Clark and Mills 1993). According to SET (Blau 1964; Homans 1958; Sprecher 1989), spouses in exchange relationships trade economic power, social status, and physical attractiveness with the expectation of receiving something equally valuable in return (Hakim 2011), even when each person assigns different values to these resources. In communal relationships, spouses share the goal of responding to each other’s needs regardless of whether they receive any exchangeable resource in return (Clark and Mills 1993). Communal relationships “can provide a sense of security and fulfillment not furnished by exchange relationships” (Clark and Mills 1993, 690).

Feingold (1981) suggests that people with partners who are more physically attractive than themselves compensate with more desirable nonphysical attributes. Because this interplay between resources exists, judges who view a mismatched couple (i.e., one that differs in terms of physical attractiveness and appears non-entitative) infer that other unobservable, non-physical attributes are being exchanged (Gould and Sigall 1977).

Research on spousal selection suggests that in the second of three possible pairings of married couples (i.e., when the wife is more attractive than the husband), the two individuals couple based on their ability to exchange resources (Baumeister and Vohs 2004; Rosenfeld 2005). A physically unattractive man married to an extremely attractive woman may compensate with his high social status or wealth (Baumeister and Vohs 2004; Elder 1969; Goode 1951;
Rosenfeld 2005; Taylor and Glenn 1976; Waller 1937). Specifically, the woman trades her physical attractiveness, which men are known to value more than women, for wealth or social status, which the husband offers in exchange for the wife’s physical attractiveness (Hakim 2011). Such a relationship based on the exchange of disparate resources is likely to signal a weak relationship. Thus, the difference in fixed characteristics of physical attractiveness is inferred to be accompanied with a difference in dynamic processes.

The third case where the wife is less attractive is the most interesting. Entitativity theory suggests that the dissimilarity in the couple’s fixed characteristic of physical attractiveness should also imply psychological dissimilarity. We propose that when a man is paired with a less attractive woman, their relationship will appear to be founded in communality rather than an exchange of resources. That is, a pairing composed of an attractive man and an unattractive woman should be perceived to share similar goals and values. The communal relationship implies that traits such as morality and warmth are valued whereas exchangeable resources are devalued. Because entitativity judgments based on common goals override judgments based on physical similarities, the relationship between a man and a less attractive woman will be perceived to be stronger. As a result, the husband (the focal person) will be perceived to value the morality traits his partner offers, and embody those traits himself. Specifically, we hypothesize that an unattractive wife will signal that her husband is more moral.

**Moderating Role of Gender**

Because communality is characteristic of female gender roles (Fiske et al. 2007), it has been argued that women are more likely to detect communality and use it to form impressions of others (Wojciszke et al. 1998). For example, when asked to list what they believe to be important in others, female participants list more communal elements than male participants do (Eagly
1987). We expect that female judges who view a man married to a less attractive woman will be more likely to detect a communal relationship between the couple than male judges. This in turn will increase the perceived strength of the target person’s relationship. Because men are less likely to make communality judgments based on the physical attractiveness of a spouse, they will be less likely to form judgments about the strength of a couple’s relationship based on the attractiveness of the spouse as well.

Further, because women do not value the physical attractiveness of a significant other as much as men do (Hakim 2011), a husband’s physical attractiveness is not diagnostic of a woman’s values. Thus, inferences about a female focal person will not be drawn based on her husband or characteristics he may exude.

**Overview of Studies**

We test our conceptual model across five studies using different scenarios (perceptions of a corporate leader, a car salesman, and an aspiring politician). In our first study, we test the general effect among both male and female judges evaluating married men and women. In the second study, we test a marketing implication – perceptions of a firm – based on perceptions of the morality of its leader. We identify a boundary to the hypothesized main effect in our third study, and provide process evidence through measured mediation in study 4 and moderated mediation in study 5. Across studies, our inclusion criteria was limited to U.S. residents above the age of 18 who had not previously participated in related studies and completed the study in its entirety. In all studies, effect sizes reflect the inclusion of all variables and interactions included in the analyses.
Study 1: General Effect

Study 1 provides the first test of our prediction that judges are more likely to perceive a focal person as more moral when paired with an unattractive (vs. attractive) spouse. Participants evaluated a focal person paired with either an attractive or unattractive spouse, where attractiveness was manipulated by altering a photograph of the same person. We theorize that judges will perceive a male focal person married to an unattractive woman to be more moral. Further, we expect that this effect will be attenuated when the focal person is a woman or when the judge is a male.

Participants and Design

Five hundred and seventy-two U.S. residents (52.1% female, \(M_{age}=35.15\), \(SD=11.50\)) were recruited from MTurk. All participants were over the age of 18 years and were residents of the United States. We employed a 2 (focal person: male vs. female, manipulated) \(\times\) 2 (spouse: attractive vs. unattractive, manipulated) \(\times\) 2 (gender of judge: male vs. female, measured) between-subjects design.

Stimuli. A single photograph of a couple was used to create two versions of their images, in which only the level of the spouse’s attractiveness differed. For each experimental condition, a professional photo-editor created attractive and unattractive versions of the photo by manipulating one of the spouse’s face. That is, when the focal person was male, his wife’s face was edited; when the focal person was female, her husband’s face was retouched.

In the unattractive version, we added subtle facial asymmetries, distorted teeth, and enhanced variations in the skin tone. In the attractive version, we reduced variations in the skin tone and added make-up on the eyes and lips. This procedure ensures that all aspects of the photo
other than attractiveness of the focal person’s spouse are identical across conditions (see Appendix O). We pretested the attractiveness of each candidate.

**Procedures.** Participants were randomly presented with one of the four images: a man with an attractive wife, a man with an unattractive wife, a woman with an attractive husband, and a woman with an unattractive husband. Participants were not given any other information except that the man and woman in the photo are married. After viewing the image, participants reported their perceptions of morality of the focal person on three seven-point bipolar scales (immoral/moral, dishonest/honest, unethical/ethical; alpha = .93). Participants then rated the physical attractiveness of the focal person and the spouse on a seven-point scale (1 = extremely unattractive to 7 = extremely attractive). Finally, participants provided demographic information and were thanked for their participation.

**Results**

**Attractiveness manipulation.** The manipulation check confirmed the success of the attractiveness manipulation for all conditions. When the focal person was male, a 2 (spouse’s attractiveness) × 2 (participant’s gender) ANOVA revealed a significant main effect of spouse’s attractiveness, with the attractive version of the wife rated higher on physical attractiveness ($M = 5.86, SD = 1.04$) than the unattractive version of the wife ($M = 3.83, SD = 1.48$; $F(1, 277) = 181.32, p < .001$; partial $\eta^2 = .396$, Cohen’s $d = 1.619$). An interaction of gender of the focal person and gender of the judge was also significant ($F(1, 277) = 8.05, p < .01$; partial $\eta^2 = .028$, Cohen’s $d = .339$), indicating that male participants rated the wife’s attractiveness more extremely; male participants perceived the attractive wife to be more attractive than female participants did ($M_{\text{Male}} = 6.06, SD = 1.06$ vs. $M_{\text{Female}} = 5.66, SD = .98$), and perceived the
unattractive wife less attractive ($M_{\text{Male}} = 3.59, \text{SD} = 1.57$ vs. $M_{\text{Female}} = 4.06, \text{SD} = 1.37$).

However, there was no main effect of the gender of the judge. Both male and female participants perceived the attractive wife to be more attractive than the unattractive wife ($F_{\text{Male}}(1, 277) = 131.48, p < .001$; partial $\eta^2 = .322$, Cohen’s $d = 1.378$; $F_{\text{Female}}(1, 277) = 57.09, p < .001$; partial $\eta^2 = .171$, Cohen’s $d = .908$).

When the focal person was female, results showed the same pattern as with a male focal person. A significant main effect of spouse’s attractiveness was observed ($M_{\text{attractive}} = 5.59, \text{SD} = 1.38$ vs. $M_{\text{unattractive}} = 4.24, \text{SD} = 1.51$; $F(1, 287) = 59.34, p < .001$; partial $\eta^2 = .171$, Cohen’s $d = .908$). The interaction of the gender of the focal person and gender of the judge was also significant ($F(1, 287) = 6.13, p = .014$; partial $\eta^2 = .021$, Cohen’s $d = .293$) but this time, female participants rated the husband’s attractiveness more extremely; female participants perceived the attractive husband more attractive than male participants did ($M_{\text{Female}} = 5.85, \text{SD} = 1.31$ vs. $M_{\text{Male}} = 5.23, \text{SD} = 1.42$), and perceived the unattractive husband to be less attractive than male participants did ($M_{\text{Female}} = 4.13, \text{SD} = 1.53$ vs. $M_{\text{Male}} = 4.34, \text{SD} = 1.48$). All participants perceived the attractive husband to be more attractive than the unattractive husband ($F_{\text{Male}}(1, 287) = 12.77, p < .001$, partial $\eta^2 = .043$; $F_{\text{Female}}(1, 287) = 55.73, p < .001$, partial $\eta^2 = .163$, Cohen’s $d = .883$). However, as in the male focal person condition, there was no main effect of gender on perceived attractiveness ($F(1, 287) = 1.46, p > .22$; partial $\eta^2 = .005$, Cohen’s $d = .142$).

Further, the perceived attractiveness of the focal person was not different regardless of his/her spouse’s attractiveness for the both male ($M_{\text{attractive}} = 4.75, \text{SD} = 1.34$ vs. $M_{\text{unattractive}} = 4.83, \text{SD} = 1.29$; $F(1, 279) = .25, p > .62$; partial $\eta^2 = .001$, Cohen’s $d = .063$) and female
(M_{attractive} = 5.16, SD = 1.33 vs. M_{unattractive} = 5.12, SD = 1.27; F(1, 289) = .08, p > .78; partial \eta^2 < .001, Cohen’s d < .060) focal person conditions.

**Morality.** We next examined participants’ perceptions of morality of the focal person. Perceived morality was computed as a mean of moral, honest, and ethical ratings. A 2 (spouse’s attractiveness) × 2 (focal person’s gender) × 2 (judge’s gender) ANOVA on perceived morality revealed a significant three-way interaction effect (see figure 6; \(F(1, 564) = 5.20, p = .023,\) partial \eta^2 = .009, Cohen’s d = .191). No other effects were significant.

In order to understand this three-way interaction better, we ran two separate analyses for the male focal person and female focal person conditions. Among participants in the male focal person condition, a 2 (attractive vs. unattractive spouse) × 2 (participant’s gender) ANOVA on perceived morality revealed a significant interaction effect (\(F(1, 277) = 4.36, p = .038,\) partial \eta^2 = .016, Cohen’s d = .255). Additionally, the main effect of spouse’s attractiveness was significant (\(F(1, 277) = 5.28, p = .022,\) partial \eta^2 = .019, Cohen’s d = .278). Contrasts revealed that among female participants, a focal male with an attractive wife was rated as less moral (\(M = 5.13, SD = 1.08\)) than a man with an unattractive wife (\(M = 5.72, SD = 1.08; F(1, 277) = 9.72, p < .01,\) partial \eta^2 = .034, Cohen’s d = .375). Consistent with our hypothesis, the results confirm that an attractive wife was detrimental to female participants’ perceived morality of a man. As expected, among male participants, no significant difference was observed in perceived morality across attractiveness conditions (\(M_{attractive} = 5.27, SD = 1.26\) vs. \(M_{unattractive} = 5.30, SD = 1.09; F(1, 277) = .02, p = .884,\) partial \eta^2 < .001, Cohen’s d < .060).

For the female focal person, a 2 (attractive vs. unattractive) × 2 (participant’s gender) ANOVA on perceived morality revealed no significant interactive or main effects (\(p’s > .26,\)
partial $\eta^2 < .004$, Cohen’s $d < .127$), rendering spouse’s attractiveness effect valid only when the focal person is male. These results are graphically represented in figure 6.

**Figure 6.** Spouse’s Attractiveness and Morality, Study 1, Essay Three

![Perceived Morality Graph]

Note: *$p < .05$, **$p < .01$

**Discussion**

Supporting our hypothesis, a wife’s attractiveness negatively impacted her husband’s perceived morality, but only when women judged the husband. A spouse’s attractiveness did not impact perceived morality of the focal person when the focal person was female, or when the judge was male. In this study we did not provide any context about the focal person, his or her profession, or why the participant would potentially interact with the focal person. In the next study, we generalize the findings in a marketing context. Additionally, we test how perceptions of married people compare to perceptions of a control group - single, unmarried people. Our goal
is to examine if an unattractive spouse increases morality perceptions or an attractive wife decreases them.

**Study 2: Marketing Implication**

Study 2 serves three objectives. First, we test the main hypothesis in a marketing context. We created a scenario of a firm where the credibility of the senior management is in question. We investigate whether the spouse’s attractiveness effect impacts morality perceptions and also measure if the perceived morality of the manager transfers to firm credibility. Second, we examine how perceived morality of a married person compares to the perceived morality of a control (single) person, and third, we seek to replicate the main hypothesis using different stimuli.

**Participants and Design**

Six hundred and twenty U.S. participants (48.9% female, $M_{age} = 35.0$, SD = 10.3) were recruited from MTurk in exchange for a small monetary reward. We employed a 2 (focal person: male vs. female, manipulated) $\times$ 3 (spouse: attractive vs. unattractive vs. control, manipulated) $\times$ 2 (participant’s gender: male vs. female, measured) between-subjects design.

**Stimuli.** In order to create attractive and unattractive versions of married couples’ pictures, we used photo-editing software to substitute faces of the couple. First, we searched online stock photo agencies for photos of attractive and unattractive male and female candidates. We pretested the attractiveness of each candidate using individual headshots. Lastly, we selected six individuals (one focal male, one focal female, two female spouses and two male spouses) and
created four versions of photos of married couples (see Appendix P). For the control conditions, we used only the focal person’s image. Thus, we created a total of six different versions of images: a single male, a male with an attractive wife, a male with an unattractive wife, a single female, a female with an attractive husband, and a female with an unattractive husband.

Procedure. Participants were randomly assigned to one of the six conditions. They were told that the purpose of study is to gauge reactions to a news story. The article given was about a fictitious mobile messenger company which had recently been implicated in a data breach scandal. The focal person was described as the Chief Information Security Officer (CISO) of the company who denied the intentionality of a security breach. After reading the article, participants reported how credible they perceived the firm to be on three 7-point scales: the extent to which they believe the executive’s comments (1= not at all to 7 = very much), the extent to which they believe the firm is innocent (1= not at all to 7 = very much), and how they feel about the firm (1 = extremely negative to 7 = extremely positive; alpha =.82). Then participants responded to the same morality measures used in study 1 (alpha =.96) before providing demographic information.

Results

Attractiveness manipulation. The attractiveness manipulation was successful and followed the same pattern of results as study 1. The attractive spouse was rated as more attractive than the unattractive spouse for both male ($M_{Attractive} = 5.75$, SD = 1.16 vs. $M_{Unattractive} = 2.89$, SD = 1.22; $F(1, 204) = 296.55, p <.001$, $\eta^2 = .592$, Cohen’s $d = 2.409$) and female focal person conditions ($M_{Attractive} = 4.72$, SD = 1.50 vs. $M_{Unattractive} = 2.27$, SD = 1.08; $F(1, 211) = 184.30, p <.001$, $\eta^2 = .466$, Cohen’s $d = 1.794$). Though not detailed here, the main effect of participant gender and the interactive effect of participant gender and spouse attractiveness followed the
same pattern of results as in study 1. Further, the perceived attractiveness of the focal person did not differ across conditions, indicating that perceptions about the focal person’s attractiveness are not influenced by their spouse’s attractiveness.

**Firm credibility.** A 3 (spouse’s attractiveness) × 2 (focal person’s gender) × 2 (participant’s gender) ANOVA on firm credibility revealed a marginally significant three-way interaction ($F(2, 608) = 2.50, p = .083$, partial $\eta^2 = .008$, Cohen’s $d = .180$; see figure 7). To understand the effect better, a separate analysis was conducted for the gender of the focal person. In the male focal person condition, a 3 × 2 ANOVA on participants’ perceptions of firm credibility revealed only a significant two-way interaction between spouse’s attractiveness and participants’ gender ($F(2, 308) = 3.65, p = .027$, partial $\eta^2 = .023$, Cohen’s $d = .307$). Female participants reported greater perceived firm credibility in the unattractive condition ($M = 3.71$, $SD = 1.27$) than in either the control ($M = 3.13$, $SD = 1.20$) or attractive conditions ($M = 3.12$, $SD = 1.12$; $F(2, 308) = 3.48, p = .032$, partial $\eta^2 = .022$, Cohen’s $d = .300$), with no difference between the latter two groups ($p > .98$, $\eta^2 < .001$). This effect was attenuated among male participants ($M_{Unattractive} = 3.19$, $SD = 1.31$ vs. $M_{Control} = 3.38$, $SD = 1.26$ vs. $M_{Attractive} = 3.47$, $SD = 1.39$; $F(1, 308) = .70, p = .499$, partial $\eta^2 = .005$, Cohen’s $d = .142$). In the female focal person condition, neither the main effect of gender nor of attractiveness was significant ($p$’s > .64, partial $\eta^2 < .003$, Cohen’s $d < .110$). More importantly, the gender × attractiveness interaction was also not significant ($p > .90$, partial $\eta^2 = .001$, Cohen’s $d = .063$), confirming that the spouse’s attractiveness effect appears only in the perceptions about a male focal person.
**Morality.** A $3 \times 2 \times 2$ ANOVA on perceived morality of the focal person showed the same pattern of results as for firm credibility with a marginally significant three-way interaction ($F(2, 608) = 2.82, p = .06$, partial $\eta^2 = .009$, Cohen’s $d = .191$; see figure 8). Separate analyses were conducted for the male focal person and the female focal person conditions. In the male focal person condition, a $3 \times 2$ ANOVA on perceived trustworthiness revealed a significant two-way interaction between spouse’s attractiveness and participants’ gender ($F(2, 308) = 3.12, p = .046$, partial $\eta^2 = .020$, Cohen’s $d = .286$). Female participants perceived the executive with an unattractive wife to be significantly more moral ($M = 4.08$, SD = 1.54) than the executive with an attractive wife ($M = 3.34$, SD = 1.40; $p = .018$) and marginally more moral than the executive with no wife (control condition; $M = 3.49$, SD = 1.56; $p = .057$). In the female-focal person condition, neither the main effects (participants’ gender and spouse’s attractiveness ($p$’s > .30,
partial \( \eta^2 < .008 \), Cohen’s \( d = .180 \) nor the interaction effects were observed \( (p > .60, \text{partial } \eta^2 = .003, \text{Cohen’s } d = .110) \).

**Figure 8.** Spouse’s Attractiveness and Perceived Morality, Study 2, Essay Three

![](image)

Note: *\( p < .05 \), **\( p < .01 \)

**Discussion**

The results of this experiment replicate study 1, providing support for our hypothesis that attractiveness of the spouse impacts morality perceptions only for female judges and when the focal person is a male. We find that married men with attractive wives are perceived to be as moral as single men suggesting that unattractive spouses increase morality perceptions. However, in studies not reported here, we failed to replicate this finding. Rather, in some studies we observed the opposite pattern where the control (single man) was perceived to be as moral as the male with the unattractive spouse. We determined that the context played a major role. In
studies where the focal males were described as wealthy (e.g., CEO’s, financial advisors), the spouse, by default, was anticipated to be attractive whereas in the lower income professions (e.g., contractors), the spouse was expected to be unattractive. Therefore, we cannot draw any definitive conclusion on the relative direction of the effect as compared to a control group.

In the next study, we test a boundary condition. In particular, we test how perceptions of a man change when his wife is endowed with exchangeable resources.

**Study 3: Boundary Condition**

Entitativity theory argues that, upon encountering a couple or social group, it is inherent to first form impressions of the group and then form impressions of the individuals. As psychological similarity is inferred from physical similarities, equally attractive people in a relationship should also be perceived to match on psychologically similarity. When an attractive female is with an unattractive man, SET proposes that the attractiveness mismatch is due to an exchange between a woman’s physical attractiveness for the husband’s monetary value (e.g., personal or familial wealth), or social status (Hakim 2011). We have conjectured that a couple where a man is mismatched physically with an unattractive spouse, they share a communal relationship based on common values. Communal relationships are considered stronger than exchange relationships, and we therefore propose that this increased perceived relationship strength drives perceptions of morality. However, if the unattractive spouse is explicitly known to exchange wealth or social status, a communal relationship should not be inferred.

Following this line of logic, the main effect of spouse’s lack of beauty on perceived morality should be attenuated by endowing the unattractive spouse with monetary or social resources. In this study, we test whether the effect of spouse’s attractiveness is attenuated when
the wife is stated to be wealthy. In doing so, we test whether attributing the relationship to an exchange of resources (vs. a communal relationship) changes the association between spouse’s attractiveness and perceived morality. As the first two studies have consistently established that only female judges make inferences on the morality of the focal males, we use only female participants in this experiment.

**Participants and Design**

Three hundred women ($M_{age} = 37.09$, SD=11.66) residing in the US were recruited on MTurk in exchange for a small fee. We employed a 2 (wife: attractive vs. unattractive, manipulated) $\times$ 2 (wife’s wealth: wealthy vs. control) between-subjects design. We used the male focal person stimuli used in study 2. Participants were randomly assigned to one of the four conditions.

The scenario used was similar to study 2. The primary difference was that the spouse was mentioned in the body of the article and her familial wealth was manipulated (see Appendix Q). In the wealthy spouse condition, the article participants read mentioned that the wife was the daughter of a hedge-fund billionaire. In the no-information condition, this information was not provided. After reading the profile, participants indicated how moral they felt the executive was using the same measure as in previous studies ($\alpha = .95$). Finally, participants indicated how attractive they found the CISO and his wife to be, and how wealthy they thought the executive’s wife was (1 = extremely poor to 7 = extremely wealthy) before providing demographic information.
Results

Attractiveness manipulation. As expected, the attractive wife was rated as more attractive than the unattractive wife ($M_{\text{Attractive}} = 5.63$, $SD = 1.26$ vs. $M_{\text{Unattractive}} = 2.67$, $SD = 1.14$; $F(1, 296) = 453.82$, $p < .001$, partial $\eta^2 = .605$, Cohen’s $d = 2.475$). There was no main effect of spouse wealth or interactive effect of spouse wealth and spouse attractiveness on perceived attractiveness of the spouse or of the focal male ($p’s > .37$, partial $\eta^2 < .004$, Cohen’s $d = .127$).

Wealth manipulation. The wife was rated as wealthier in the wealthy condition than in the control condition ($M_{\text{Wealthy}} = 6.22$, $SD = 1.11$ vs. $M_{\text{Control}} = 4.72$, $SD = 1.35$; $F(1, 296) = 113.16$, $p < .001$, partial $\eta^2 = .277$, Cohen’s $d = 1.238$). There was an effect of spouse attractiveness on perceived wealth ($F(1, 296) = 5.205$, $p = .023$, partial $\eta^2 = .017$, Cohen’s $d = .263$), such that the attractive spouse was perceived to be wealthier than the unattractive spouse ($M_{\text{Attractive}} = 5.63$, $SD = 1.34$ vs. $M_{\text{Unattractive}} = 5.32$, $SD = 1.53$). There was no interactive effect of spouse attractiveness and wealth information condition on the wife’s perceived wealth.

Morality. Results of mean comparison demonstrated a significant two-way interaction between spouse’s attractiveness and participants’ gender ($F(1, 296) = 5.71$, $p = .017$, partial $\eta^2 = .019$, Cohen’s $d = .278$). Figure 9 summarizes these results. Participants perceived the executive with an unattractive wife to be more moral ($M = 3.05$, $SD = 1.39$) than the executive with an attractive wife ($M = 2.59$, $SD = 1.28$; $F(1, 297) = 4.01$, $p = .046$, partial $\eta^2 = .013$, Cohen’s $d = .230$) when no information about the wife’s wealth was provided. However, this difference was attenuated when the wife was stated to be wealthy ($M_{\text{Unattractive}} = 2.55$, $SD = 1.40$ vs. $M_{\text{Attractive}} = 2.87$, $SD = 1.58$, $F(1, 296) = 1.90$, $p > .15$, partial $\eta^2 = .006$, Cohen’s $d = .155$).
Discussion

This study confirms our theory that perceptions of morality are driven by the inferences about the communal relationship between a couple. When a man’s wife is explicitly endowed with an exchangeable resource, his perceived morality decreases. We theorize that the difference in perceived morality between a man with an attractive wife and a man with an unattractive wife can be attributed to a difference in perceived relationship strength between the two pairs.

Communal relationships are perceived to be stronger than exchange relationships because they signal shared goals and values. Common goals and values increase the perceived entitativity of the group. As a result, the couple’s value of communal elements like morality transfers to each person in the relationship, making the husband seem more moral. We test this in the next study.

Figure 9. Spouse’s Attractiveness and Perceived Morality, Study 3, Essay Three

Note: *p < .05, **p < .01
Study 4: Mediation

We have proposed that increased perceived morality is an outcome of increased perceived relationship strength between a couple. In this study, we test this process. We also examine two alternative explanations. First, it is possible that the unattractive spouse may be perceived to be more likable thereby leading to more positive perceptions of the spouse. Second, unattractive spouses may be perceived by judges to be more similar to them, and could account for higher assessments of the husband.

Participants and Design

One hundred and eighty-seven undergraduate students (49.2% female, $M_{\text{Age}} = 20.44$, $SD = 1.56$) participated in exchange for course credit. We employed a $2 \times 2$ (spouse: attractive vs. unattractive wife, manipulated) $\times$ (participant’s gender: male vs. female, measured) between-subjects design. In all conditions, the focal person was male and the attractiveness of his wife was manipulated. We used the male focal person photographs used in study 2, but changed the profession and context of the evaluation (see Appendix R). Participants were randomly assigned to one of the four conditions.

Participants were asked to imagine that they were considering purchasing a used car and were looking at different used car sellers’ profiles. They came across one for a car dealer – the male focal person – whose dealership was close to the participant’s residence. The car dealer’s profile showed a picture of him with his wife, along with a short biography of how and why the dealer first started selling used cars.
After reading the profile, participants indicated how moral they felt the car dealer was using the same measure as in previous studies (alpha = .88). Next, they indicated how they felt the relationship between the car dealer and his wife would be in each of five aspects, measured on 7-point bipolar scales (superficial/deep, unhappy/happy, unbalanced/balanced, insecure/trusting, competitive/cooperative; alpha = .91; Forgas 1993). The five items were averaged together to form a single measure of perceived relationship strength (alpha = .86). Finally, participants indicated how much they thought they would like the wife if they met her in person (1 = not at all to 7 = very much), how attractive they found the wife to be (1 = not at all attractive to 7 = very attractive), and how attractive they perceived themselves to be (1 = not at all attractive to very attractive), and finally provided demographic information.

**Results**

There were no significant effects of perceived likeability of the spouse, the participant’s own attractiveness, or the participant’s own attractiveness relative to that of the wife on perceived morality of the target person. These variables are therefore excluded from the remainder of the analysis.

**Attractiveness Manipulation.** As expected, the attractive wife was rated as more attractive than the unattractive wife ($M_{Attractive} = 5.51$, SD = 1.21 vs. $M_{Unattractive} = 2.83$, SD = .96; $F(1,183) = 286.94$, $p < .001$, partial $\eta^2 = .611$, Cohen’s $d = 2.507$). There was also a main effect of participant’s gender on perceived attractiveness ($F(1, 183) = 4.47$, $p = .036$, partial $\eta^2 = .024$, Cohen’s $d = .314$). Women perceived the spouse to be more attractive than men did ($M_{Female} = 4.34$, SD = 1.69 vs. $M_{Male} = 4.04$, SD = 1.76). There was no interactive effect of spouse’s attractiveness and participant’s gender on perceived attractiveness of the spouse ($p > .45$, partial
$\eta^2 = .003$, Cohen’s $d = .110$). The perceived attractiveness of the focal male did not differ between conditions ($p > .10$, partial $\eta^2 = .013$, Cohen’s $d = .230$).

**Morality.** A $2 \times 2$ ANOVA on perceived morality showed a significant two-way interaction between spouse’s attractiveness and participants’ gender ($F(1, 183) = 5.59, p = .019$, partial $\eta^2 = .030$, Cohen’s $d = .352$). Female participants found the car dealer with an unattractive wife to be more moral ($M = 4.62, SD = 1.11$) than the car dealer with an attractive wife ($M = 3.97, SD = .97$; $F(1, 183) = 9.53, p < .01$, partial $\eta^2 = .050$, Cohen’s $d = .459$). No difference was found between male participants’ ratings of morality between conditions ($p > .81$, partial $\eta^2 < .001$, Cohen’s $d < .063$). Thus, the findings from studies 1-3 are replicated and are graphically represented in figure 10.

**Perceived Relationship Strength.** We expect perceived relationship strength to mediate the effect of spouse’s attractiveness on perceived morality. Specifically, we expect to find that participants will perceive the relationship between a man and an unattractive woman (as opposed to a man and an attractive woman) to be stronger. Importantly, we expect the gender of the judge to moderate this effect, such that the mediation effect holds only among female judges and is attenuated among male judges. To test this hypothesis, we conducted a mediation analysis using bootstrapping with repeated extraction of 5,000 samples (Hayes 2013, Model 8). This model included spouse’s attractiveness condition as the independent variable ($1 =$ attractive wife, $0 =$ unattractive wife), perceived relationship strength as the mediator, judge’s gender as the moderator ($1 =$ male, $0 =$ female), and perceived morality as the dependent variable.
Results indicated that the indirect effect of spouse attractiveness through perceived relationship strength was negative and significantly different from zero (95% CI: [-.70, -.22]) among female judges. This confirms our proposition that women evaluate a married man to be less moral when he is married to an attractive woman, because the perceived strength of their relationship is weaker. However, when the judge is male, perceived relationship strength did not mediate the effect of spouse attractiveness on perceived morality of the car dealer (95% CI: [-.37, .03]). Furthermore, the indirect effect of spouse attractiveness through perceived relationship strength differed among male and female participants (95% CI: [.07, .61]), which provided evidence for moderated mediation. The association between spouse attractiveness and perceived relationship strength is visually represented in figure 11 and summarized in table 11.
Figure 11. Spouse’s Attractiveness and Perceived Relationship Strength, Study 4, Essay Three

![Perceived Relationship Strength](image)

Note: *p < .05, **p < .01

Table 11. Summary of Mediation, Study 4, Essay Three

<table>
<thead>
<tr>
<th></th>
<th>Moral traits</th>
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<tbody>
<tr>
<td>Direct effect of spouse’s attractiveness</td>
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<tr>
<td>Unattractive spouse</td>
<td>-.77 (.22)***</td>
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</tbody>
</table>

Indirect effect of spouse’s attractiveness through perceived relationship strength

<table>
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<th></th>
<th>Moral traits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unattractive spouse</td>
<td>-.52 (.20)*</td>
</tr>
<tr>
<td>Perceived relationship strength</td>
<td>-.57 (.09)***</td>
</tr>
<tr>
<td>95% CI index of mediation</td>
<td>[-.53, -.04]</td>
</tr>
</tbody>
</table>

Note: For regression and mediation analyses, standard errors are in parentheses next to coefficients; *** p < .001, ** p < .01, * p < .05, ^ p < .10

Discussion

The results of the study confirm our theorizing that when a man is paired with an unattractive wife, judges likely conclude that the relationship is communal and based on shared goals and values, which increases the perceived relationship strength. Thus, a man with an
unattractive wife is perceived to be more moral because he has a stronger relationship with his wife. In the next study, we provide information to directly manipulate perceived relationship strength and test whether perceived morality changes as a result.

**Study 5: Mediation through Moderation**

Our proposed process rests on perceived relationship strength. We predict that perceived relationship strength mediates the effect of spouse’s appearance on morality perceptions of a focal person. If a focal person is stated to have a weak relationship, pairing him with an unattractive woman should not make him appear moral. The main objective of this study is to provide process evidence by manipulating perceived relationship strength. We describe a husband and wife as having a tumultuous relationship having been separated, divorced, and remarried in the past (vs. providing no information about the relationship). We anticipate that reducing perceived relationship strength will attenuate the effect of spouse’s appearance on morality perceptions.

**Participants and Design**

One hundred and eighty-five women ($M_{Age} = 36.19, SD = 11.25$) recruited on MTurk and residing in the U.S. participated in the study in exchange for a small monetary reward. We employed a 2 (wife: attractive vs. unattractive) x 2 (relationship strength: control vs. weak) between-subjects design. Participants were randomly assigned to one of the four conditions.

Participants were asked to read a local news piece about a candidacy announcement. The focal male had announced his candidacy for Mayor, and had made the announcement alongside his wife. In all conditions, the article gave a brief overview of the beautification and growth
initiatives the focal male had initiated and provided information on when the focal male and his wife got married. In the control condition, no other information was provided. In the weak relationship condition, the article detailed how the couple had first married, then separated and divorced before remarrying, and stated that the couple had recently filed for divorce again. The article contained a picture of the focal male and his wife. The stimuli used is provided in Appendix S.

Participants indicated how moral they perceived the focal male to be (alpha = .94), how strong they perceived the relationship between the focal male and his wife to be (alpha = .96), and how attractive they perceived the wife to be (1 = very unattractive to 7 = very attractive). Finally, participants provided demographic information and were thanked for their participation.

Results

Attractiveness manipulation. Participants perceived the attractive wife to be more attractive ($M = 5.56, SD = 1.02$) than the unattractive wife ($M = 3.06, SD = 1.47; F(1, 181) = 177.14, p < .001, \text{partial } \eta^2 = .495, \text{Cohen’s } d = 1.980$). There was no main effect of the relationship strength condition ($p > .74, \text{partial } \eta^2 = .001, \text{Cohen’s } d = .063$) or interactive effect between the relationship strength and attractiveness conditions ($p > .07, \text{partial } \eta^2 = .017, \text{Cohen’s } d = .263$).

Morality. Results of a 2 x 2 ANOVA demonstrated a significant main effect of information condition – participants in the weak relationship condition perceived the male to be less moral than participants in the control condition ($M_{\text{Weak}} = 3.93, SD = 1.29 \text{ vs. } M_{\text{Control}} = 5.39, SD = 1.01; F(1, 181) = 74.62, p < .001, \text{partial } \eta^2 = .292, \text{Cohen’s } d = 1.284$). Importantly, there
was a significant interactive effect of relationship strength and attractiveness conditions \( (F(1, 181) = 6.66, p = .011, \text{partial } \eta^2 = .035, \text{Cohen's } d = .381) \). When no information about the relationship was provided (the control condition), the focal male with an attractive wife was perceived to be significantly less moral than a focal male with an unattractive wife \( (M_{\text{Attractive}} = 5.03, \text{SD} = 1.01 \text{ vs. } M_{\text{Unattractive}} = 5.75, \text{SD} = .88; F(1, 181) = 8.54, p < .01, \text{partial } \eta^2 = .045, \text{Cohen's } d = .434) \). This difference was attenuated in the weak relationship condition \( (p > .50) \).

These results are summarized in figure 12.

*Figure 12. Spouse's Attractiveness and Perceived Morality, Study 5, Essay Three*

![Perceived Morality Graph](image)

Note: *p < .05, **p < .01

**Mediating Role of Perceived Relationship Strength.** We first discuss the effects of attractiveness condition and judge's gender on perceived relationship strength, and expect to find the same pattern of results as for morality. We then analyze the mediating role of perceived
relationship strength. Mean-comparison results showed a main effect of relationship strength condition, such that participants in the weak relationship condition perceived the relationship to be weaker than participants in the control condition ($M_{\text{weak}} = 2.71$, $SD = 1.35$ vs. $M_{\text{control}} = 4.98$, $SD = 1.13$; $F(1, 181) = 145.93$, $p < .001$, partial $\eta^2 = .446$, Cohen’s $d = 1.794$). There was also a main effect of attractiveness condition, such that participants in the attractive condition perceived the relationship to be weaker than participants in the unattractive condition ($M_{\text{attractive}} = 3.52$, $SD = 1.47$ vs. $M_{\text{unattractive}} = 3.96$, $SD = 1.81$; $F(1, 181) = 6.72$, $p = .010$, partial $\eta^2 = .036$, Cohen’s $d = .386$).

Importantly, there was a significant interactive effect of relationship strength and attractiveness conditions ($F(1, 181) = 4.21$, $p = .042$, partial $\eta^2 = .023$, Cohen’s $d = .304$). Planned contrasts showed that in the control condition, the focal male with an attractive wife was perceived to have a weaker relationship than a focal male with an unattractive wife ($M_{\text{attractive}} = 4.47$, $SD = .98$ vs. $M_{\text{unattractive}} = 5.31$, $SD = 1.13$; $F(1, 181) = 10.18$, $p < .01$, partial $\eta^2 = .053$, Cohen’s $d = .473$). This difference was attenuated in the weak relationship condition ($M_{\text{attractive}} = 2.66$, $SD = 1.29$ vs. $M_{\text{unattractive}} = 2.76$, $SD = 1.42$; $F(1, 181) = .16$, $p > .69$, partial $\eta^2 = .001$, Cohen’s $d = .063$). These findings are pictorially represented in figure 13.

As in study 4, we also conducted a moderated mediation analysis to test the mediating role of perceived relationship strength. The set up was the same as in study 4, and added relationship strength condition as the moderator ($1 = \text{weak relationship}, 0 = \text{control}$).

There was a significant negative indirect effect of attractiveness condition through perceived relationship strength (95% CI: [-.65, -.19]) in the control condition. This allows us to conclude that a spouse’s attractiveness reduces perceived morality through lower perceived
relationship strength. There was no mediating effect of perceived relationship strength in the weak relationship condition (95% CI: [-.32, .20]). Finally, the indirect effect of spouse’s attractiveness was significantly different between the control and weak relationship conditions (95% CI: [.03, .71]), which provided evidence for moderated mediation. See table 12.

Figure 13. Spouse’s Attractiveness and Perceived Relationship Strength, Study 5, Essay Three

Table 12. Summary of Moderated Mediation, Study 5, Essay Three

<table>
<thead>
<tr>
<th>Mediating role of perceived relationship strength</th>
<th>Direct effect of spouse’s attractiveness</th>
<th>Indirect effect of spouse’s attractiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control</td>
<td>Weak relationship</td>
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<tr>
<td>Familial cue</td>
<td>.72 (.20)**</td>
<td>-.15 (.26)</td>
</tr>
<tr>
<td>Perceived engagement</td>
<td>.49 (.08)***</td>
<td>.47 (.09)***</td>
</tr>
<tr>
<td>95% CI index of mediation</td>
<td>[-.65, -.19]</td>
<td>[-.32, .20]</td>
</tr>
</tbody>
</table>

Note: Standard errors are in parentheses next to coefficients; *** p < .001; **p < .01, * p< .05
Discussion

The results of this study further validate our theoretical account that weak perceived relationship strength is linked to lower morality of a male. When a person is known to have a weak or problematic relationship, we expected the effect of spouse’s attractiveness to be attenuated. By directly manipulating perceived relationship strength, this study tests and provides evidence for our full conceptual model. Collectively, our studies consistently show that spouse’s attractiveness negatively impacts consumers’ perceived morality of a man (studies 1-5), and that this effect is attenuated when an unattractive spouse is endowed with social resources (e.g., money, study 3) and when the relationship is perceived to be weak (study 5).

General Discussion

In several domains, the spouse is highly visible and plays a major role in the presentation of the focal person to his constituents. Person perception and judgment formation research has focused mainly on how a target person’s own appearance and behavior influences how others perceive them. In this article, we consider how these impressions are guided by external signals, specifically the target person’s choice of spouse or significant other. The choice of a spouse is an independent choice, and thus reflects one’s personal values and prioritization of exchangeable resources (i.e., physical attractiveness, wealth, and social status). When encountering a romantic couple, it is elemental to first form perceptions of the unit before making inferences or predictions about each unit’s traits or characteristics (McConnell, Sherman, and Hamilton 1997) and predictions of individuals and their future behavior are based on the impression of the group (Dasgupta et al. 1999).
We have shown that a spouse’s attractiveness influences morality judgments of a target person by altering the perceived strength of their relationship. When a couple appears non-entitative, and the wife is more attractive than the husband, their relationship is justified by an exchange of the wife’s physical attractiveness for the husband’s wealth or social status (e.g., Baumeister and Vohs 2004). This same assumption cannot be made for the relationship between a man and a less attractive woman. When the couple is non-entitative and there is no obvious exchange of resources (physical attractiveness, wealth, or social status), judges consider dynamic processes underlying the relationship. Judges likely conclude that the couple shares common goals and communal values, have a communal relationship, and that the relationship is stronger. Consequently, the couple in the relationship are thought to place greater importance on morality traits, and embody those traits themselves. We find that only women tend to make these inferences and only when the focal person is a male.

We first examined the effect of spouse’s attractiveness on perceptions of a focal person using both male and female targets and subjects. When the focal person was male and the judge was female, a man with an unattractive wife was perceived to be more moral than a man with an attractive wife. However, when the judge was male or the focal person was female, there was no effect of a spouse’s attractiveness on perceptions of the focal person. The first study provided some initial support for the notion that female judges perceive spouses as signals of a focal male’s basic values, and base their judgments of the focal person on those signals. The next study directly tested how spouse’s attractiveness influences not only perceptions of the focal person, but also attitudes toward the firm represented by the focal male. The second study replicated the effects of the first study, and demonstrated that female consumers believe a male
with an unattractive wife to be more moral and that this perception transfers to greater perceived firm credibility.

Because marital relationships can broadly be classified as either exchange or communal relationships – the former being where spouses trade physical attractiveness, wealth, or social status, and the latter being a more emotional relationship without a pretense of exchange – the third study examined how perceptions change if the spouse was endowed with an exchangeable resource. We expected to find that no moral judgments are made about a couple when the wife is endowed with an exchangeable resource, and our results confirmed this expectation. This study suggested that in the absence of clearly exchangeable resources, no inferences about the communal aspect of the relationship are made.

In our final two studies, we directly tested the underlying mechanism through both measured and moderated mediation. We measured perceived relationship strength in study 4, and manipulated perceived relationship strength in study 5 by describing the couple’s relationship as tumultuous (low relationship strength) or providing no information (control). In both studies, we found support for our premise that the relationship between a man and an unattractive woman is perceived to be stronger, which signals greater value and embodiment of moral traits such as trustworthiness.

**Theoretical Contributions**

Person perceptions research has examined the positive influence of beauty on perceptions and treatment of others. We contribute to this stream of literature by showing how systematic differences in the relative attractiveness of a couple could result in a negative effect of beauty. To the extent that physical attractiveness is an exchangeable resource in marriage, the absence of
Our findings open up several avenues for future research. Politicians often use their families as cues to signal morality or “family values.” The families include the spouse, children, parents, and even pets that are brought to public attention. How do these cues impact judgments and which what cues are more effective? While we have focused on morality judgments, competence is another key attribute for consumer choice. In particular, how are judgments of competence of women made based on their spouse? It is possible that the competence of women business leaders is judged based on their spouse and (lack of) children. One hypothesis is that
career-oriented women marry career-oriented men, which may signal competence. Alternatively, being married to a stay at home spouse indicates a single-minded goal.

**Managerial Implications**

The findings of this research provide some general guidelines for how business owners, politicians, leaders, and managers should present themselves and their personal lives as they can impact perceptions of themselves or their firm. A large body of research in finance demonstrates that stock prices capture consumers’ sentiment toward a company (e.g., Brown and Cliff 2004; Tetlock 2007). When a company faces a moral scandal, stock price decreases, such as when Nike’s shareholders saw a $5-12 billion dollar decrease in value after Tiger Woods was revealed to be involved in extramarital affairs. In this article, we find that positive morality judgments of a CEO improve firm credibility, which can act as a buffer to negative news. Thus, in line with our findings and research in finance, the perceived morality of a CEO can increase firm value.

The negative impact of a spouse’s attractiveness on perceptions of the focal person could potentially be counteracted by placing a greater emphasis on the communal nature of the couple’s relationship. For example, when Mark Zuckerberg’s first daughter was born, he published an open letter to her on Facebook. The letter contained his hopes and dreams for his daughter, which revolved entirely around empowering others, making the world a better place, and growing up to be a moral, compassionate person. Exemplifying moral values through personal stories and observable actions may allow CEOs and leaders to convey their morality, which in turn improves attitudes toward their company, firm value and make it more resistant to negative news.
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mentorship


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APPENDIX A: Examples of Familial Cues

Example 1: Dentist

Example 2: Dentist
Example 3: Financial advisor

My dad loved playing football and golf, but he and I actually bonded over finance, not sports. A brilliant banker and a senior vice president at JP Morgan Chase, he made sure to teach me about money and personal finance at a young age.

In fact, he took me, his oldest daughter of three, to work with him before Take Your Daughter to Work Day became widespread. We went to foreclosure auctions and watched “Straight Talk on Money” with Ken and Daria Dolan. At lunch, we pored over 401k statements and budgets, and he showed me why it is so important to match employer contributions and increase the overall contribution each year.

Example 4: Financial Advisor

Why I Love the Investment Management Business

By J. Peter Simon

At a young age, I saw just how true the phrase “do what you love, and you will never have to work a day in your life” is. My father was a successful Wall Street leader, and I saw how much he loved his job. He provided a strong and positive impression of the financial services industry, and I was inspired to do the same: pursue a career that allowed me to help others and feel satisfied in what I was doing.

Starting My Career

After graduating college with a degree in psychology, I started my career at Kidder, Peabody & Co. Twelve and a half years later I was a Managing Director in the Convertible Securities Department at Kidder Peabody.
Example 5: Architect

Schickel Design Company - Second Generation (2000-present)

Martha Schickel Dorff

Martha Schickel Dorff worked under William Schickel from 1970 to 2000 on numerous noteworthy projects, among them, Geneva On The Lake and Miami Valley Hospital Chapel. She took over leadership of Schickel Design in 2000 upon William Schickel’s retirement. As an architect, artist, and developer - Martha has advanced the work of Schickel Design in creating award-winning architectural and interior designs, furnishings, works of art and stained glass for clients nationwide. In 2005, Schickel Design moved from Loveland, Ohio to the emerging urban neighborhood of Over-the-Rhine in downtown Cincinnati where the company has continued to flourish

Example 6: Actress

Corinne Foxx

View Resume | Official Photos »

Corinne grew up in Los Angeles, California. Her father is award winning actor, Jamie Foxx. In 2016, Corinne graduated from the University of Southern California, with a bachelor's degree in Public Relations. She studied acting at the Howard Fine Acting Studio and American Academy For Dramatic Arts in Los Angeles. Corinne began her modeling career … See full bio »

Born: February 15, 1994 in Los Angeles, California, USA

More at IMDbPro »

Contact Info: View agent, manager, publicist and legal

Represent Corinne Foxx? Add contact information
Example 7: Actress

Rumer Willis
Actress | Soundtrack

Rumer Glenn Willis was born August 16th, 1988, in Paducah, Kentucky, to actors Demi Moore and Bruce Willis. She was named after the British novelist Rumer Godden. She made her debut at the age of 5 in the movie Now and Then (1995) but was credited as Willa Glen. Her mother hired cameramen to video tape her birth. See full bio »

Born: August 16, 1988 in Paducah, Kentucky, USA

More at IMDbPro »

Contact Info: View agent, manager, publicist and legal

Example 8: Actor

Chris Pine (I)
Actor | Producer | Soundtrack

Chris Pine was born in Los Angeles. His parents are actors Robert Pine and Gwynne Gilford, and his maternal grandparents were Max M. Gilford, a president of the Hollywood Bar Association, and actress Anne Gwynne. His sister, Katherine Pine, has also acted. Chris’s ancestry is Russian Jewish (from his maternal grandfather), English, German, Welsh, ... See full bio »

Born: August 26, 1980 in Los Angeles, California, USA

More at IMDbPro »

Contact Info: View agent, manager, publicist and legal
Example 9: Product packages

Example 10: Product packages
Example 11: Product Packages

Our family-run company was founded by my mom, who raised three children while working as a registered nurse, lactation consultant and certified nurse midwife. Driven by compassion, she created Mommy’s Bliss to safely and naturally bring families back to wellness.

Look for our other products:
- gas relief drops
- gripe water night time
- vitamin D organic drops
- multivitamin organic drops
- probiotic drops
- probiotic powder packs

mommyleiss.com
APPENDIX B: Counterbalanced Stimuli in Study 1, Essay One

Thank you for taking this short survey.

We at the Jones Graduate School of Business at Rice University are working with local grocery stores to understand how consumers like you make choices.

On the next page, you will be asked to read descriptions of two gourmet chocolate bars, which the companies’ CEOs have provided, and select the one you prefer. You will then be asked to provide your gender and year of birth.

The names of the companies have been excluded in order to gather unbiased opinions.

Upon returning the survey, you will receive the chocolate you selected as thanks for your participation.

[Survey version 1; Company 1, family first]

Gourmet milk chocolate by Company A:
My family founded our chocolate company, Company A, in 1868, and has been making smooth, rich chocolate since. We use only the finest quality cacao beans and milk in each chocolate bar to celebrate the true artistry of chocolate making. We hope you enjoy it as much as we’ve enjoyed making it.

- Description provided by CEO and family member of Company A

Gourmet milk chocolate by Company B:
Since 1912, Company B has been making high quality chocolate for its customers. Each chocolate bar is made with high-quality milk and chocolate. For us, taste and quality belong together, and we ensure that only flawless raw materials are used in our production facilities. Only products we approve reach you.

- Description provided by CEO of Company B

[Survey version 2; Company 1, non-family first]

Gourmet milk chocolate by Company A:
Company A was founded in 1868, and has been making smooth, rich chocolate since. We use only the finest quality cacao beans and milk in each chocolate bar to celebrate the true artistry of chocolate making. We hope you enjoy it as much as we’ve enjoyed making it.

- Description provided by CEO of Company A

Gourmet milk chocolate by Company B:
Since 1912, my family and I at Company B have been making high quality chocolate for its customers. Each chocolate bar is made with high-quality milk and chocolate. For us, taste and quality belong together, and we ensure that only flawless raw materials are used in our production facilities. Only products we approve reach you.

- Description provided by CEO and family member of Company B

[Survey version 3; Company 2, family first]

Gourmet milk chocolate by Company A:
Since 1912, my family and I at Company A have been making high quality chocolate for its customers. Each chocolate bar is made with high-quality milk and chocolate. For us, taste and quality belong together, and we ensure that only flawless raw materials are used in our production facilities. Only products we approve reach you.

- Description provided by CEO and family member of Company A

Gourmet milk chocolate by Company B:
Company B was founded in 1868, and has been making smooth, rich chocolate since. We use only the finest quality cacao beans and milk in each chocolate bar to celebrate the true artistry of chocolate making. We hope you enjoy it as much as we’ve enjoyed making it.

- Description provided by CEO of Company B

[Survey version 4; Company 2, non-family first]

Gourmet milk chocolate by Company A:
Since 1912, Company A has been making high quality chocolate for its customers. Each chocolate bar is made with high-quality milk and chocolate. For us, taste and quality belong together, and we ensure that only flawless raw materials are used in our production facilities. Only products we approve reach you.

- Description provided by CEO of Company A

Gourmet milk chocolate by Company B:
My family founded our chocolate company, Company B, in 1868, and has been making smooth, rich chocolate since. We use only the finest quality cacao beans and milk in each chocolate bar to celebrate the true artistry of chocolate making. We hope you enjoy it as much as we’ve enjoyed making it.

- Description provided by CEO and family member of Company B

Which chocolate bar do you prefer? You will receive the chocolate you choose. Please select one option.
☐ Gourmet milk chocolate by Company A
☐ Gourmet milk chocolate by Company B
APPENDIX C: Stimuli in Study 2, Essay One

Family condition:

Below is the text from the back of the jar label

My love for the Mexican food my mother cooked as a certified chef in her Mexican restaurant led me to dive into Mexican cuisine when I went to culinary school. After following in my mother’s footsteps obtaining my culinary arts degree, I decided to help make the foods my mother and I love readily available to others. That’s why, after trying different recipes, I created this salsa – to help you bring my favorite flavors to your home, quickly and simply. I hope you enjoy this salsa.

– Elizabeth Ortega, Chef, daughter, and creator of Poblano Farm Salsa

Control condition:

Below is the text from the back of the jar label

My love for Mexican food led me to dive into Mexican cuisine when I went to culinary school. After obtaining my culinary arts degree, I decided to help make the foods I love readily available to others. That’s why, after trying different recipes, I created this salsa – to help you bring my favorite flavors to your home, quickly and simply. I hope you enjoy this salsa.

– Elizabeth Ortega, Chef and creator of Poblano Farm Salsa
APPENDIX D: Stimuli in Study 3, Essay One

Family condition:

MEET DR. BENJAMIN MORGAN

Dr. Benjamin Morgan is a dentist at Avion Dental. Dr. Morgan decided to become a dentist because his father, who is also a dentist, inspired his interest in dental and orthodontic care. As a dentist at Avion dental, Dr. Morgan works to address the needs of the surrounding community.

Dr. Benjamin Morgan is a graduate of the University of Colorado School of Dental Medicine. Outside of work he enjoys spending time outdoors with his wife and children.

Control condition:

MEET DR. BENJAMIN MORGAN

Dr. Benjamin Morgan is a dentist at Avion Dental. Dr. Morgan decided to become a dentist because of his interest in dental and orthodontic care. As a dentist at Avion dental, Dr. Morgan works to address the needs of the surrounding community.

Dr. Benjamin Morgan is a graduate of the University of Colorado School of Dental Medicine. Outside of work he enjoys spending time outdoors with his wife and children.
APPENDIX E: Measures, Essay One

In all measures X is the name of the target professional and Y is the profession

**Competence Traits**

**Kirmani et al. 2017**
Please indicate what you think X is like as a Y (1 = not at all, 7 = very much)
- a. Knowledgeable
- b. Skilled
- c. Intelligent
- e. Competent

**Competence: Empathy**

**Adapted from Lee et al. 2000**
The following set of statements relate to your feelings about X as a Y. For each statement, please indicate the extent to which you believe X would have the features described in the statement (1 = not at all, 7 = very much)
- a. Alleviating patient concerns about the Y treatment
- b. Personal demeanor of the Y
- c. Learning the patient’s individual needs
- d. Providing individual consideration to the patient
- e. Remembering names and faces of patients

**Competence: Assurance**

**Adapted from Lee et al. 2000**
The following set of statements relate to your feelings about X as a Y. For each statement, please indicate the extent to which you believe X would have the features described in the statement (1 = not at all, 7 = very much)
- a. Courteous, friendly toward patients
- b. Explaining the cost of service to the patient
- c. Explaining the Y service to the patient
- d. Courteous, friendly toward other Y
- e. Sensitivity to patient confidentiality

**Competence: Reliability**

**Adapted from Lee et al. 2000**
The following set of statements relate to your feelings about X as a Y. For each statement, please indicate the extent to which you believe X would have the features described in the statement (1 = not at all, 7 = very much)
a. Accuracy in patient billing
b. Current, accurate and neat dental record
c. Good reputation among patients
d. Good reputation among other Y

e. Good reputation of the Y practice
f. Y compliance with best practices

Engagement

Adapted from Work Attention Scale, Rothbard 2001
Please consider what X is like as a Y. Please indicate the extent to which you agree with each of the following statements as they pertain to X. (1 = not at all, 7 = very much)

1. X has spent a lot of time thinking about a career in Y
2. X has focused a great deal of attention on a career in Y
3. X has concentrated a lot on a career in Y
4. X has paid a lot of attention to a career in Y

Mentorship

Adapted from Lack of Mentoring Scale, Lyness 2000
Please consider what X is like as a Y. Please indicate the extent to which you agree with each of the following statements as they pertain to X. (1 = not at all, 7 = very much)

1. X has received mentoring in Y.
2. X has had senior Y who facilitate his career progress.
3. X has had access to the right people (or knowing the right people).
4. X has received meaningful feedback about his strengths and weaknesses.
APPENDIX F: Stimuli in Study 4, Essay One

Family, control-engagement condition:

CHRISTIAN LEWIS ARCHITECTURE

My goal as an architect and builder is to create homes people love, similar to how my father approached his clients and projects as an architect and builder. The homes I’ve built and remodeled have ranged in size, location, and overall feel. I’m fortunate to work in an industry that helps me blend science and construction, just like it did for my father.

I followed in my father’s footsteps and graduated as a licensed architect and builder in 2013. I have enjoyed the unique journey each project has brought me on and look forward to many more.

Family, high-engagement condition:

CHRISTIAN LEWIS ARCHITECTURE

I dreamt of becoming an architect and builder since I was a child, just like my father. As a child, I spent my spare time building small homes out of any materials I could find. As soon as I turned sixteen, I spent my time after school, on weekends, and over the summer working at construction sites and learning as much as I could from the architects that designed them and the builders that constructed them.

My goal as an architect and builder is to create homes people love, similar to how my father approached his clients and projects as an architect and builder. The homes I’ve built and remodeled have ranged in size, location, and overall feel. I’m fortunate to work in an industry that helps me blend science and construction, just like it did for my father.

I followed in my father’s footsteps and studied architecture throughout college. I graduated as a licensed architect and builder in 2013. I have enjoyed the unique journey each project has brought me on and look forward to many more.
Control, control-engagement condition:

CHRISTIAN LEWIS ARCHITECTURE

My goal as an architect and builder is to create homes people love. The homes I've built and remodeled have ranged in size, location, and overall feel. I'm fortunate to work in an industry that helps me blend science and construction.

I graduated as a licensed architect and builder in 2013. I have enjoyed the unique journey each project has brought me on and look forward to many more.

Control, high-engagement condition:

CHRISTIAN LEWIS ARCHITECTURE

I dreamt of becoming an architect and builder since I was a child. As a child, I spent my spare time building small homes out of any materials I could find. As soon as I turned sixteen, I spent my time after school, on weekends, and over the summer working at construction sites and learning as much as I could from the architects that designed them and the builders that constructed them.

My goal as an architect and builder is to create homes people love. The homes I've built and remodeled have ranged in size, location, and overall feel. I'm fortunate to work in an industry that helps me blend science and construction.

I studied architecture throughout college. I graduated as a licensed architect and builder in 2013. I have enjoyed the unique journey each project has brought me on and look forward to many more.
APPENDIX G: Stimuli in Study 5, Essay One

Family, simple task condition

MEET YOUR PHARMACIST: JAMES FORSETH, Pharm D.

James Forseth is a licensed pharmacist in the state. James chose to become a pharmacist because his mother, who is also a pharmacist, inspired his interest in biology, pharmaceuticals, and how the human body responds to diseases. A typical work day for James involves filling patient prescriptions, ensuring that the correct type and number of pills are given to patients and providing the information patients need about their medication.

James Forseth is a Pharm D. graduate from the University of Texas. He has been working at AllHealthcare Pharmacy since he graduated in 2010.

Family, complex task condition

MEET YOUR PHARMACIST: JAMES FORSETH, Pharm D.

James Forseth is a licensed compound pharmacist in the state. James chose to become a compound pharmacist because his mother, who is also a compound pharmacist, inspired his interest in biology, compound pharmaceuticals, and how the human body responds to diseases. A typical work day for James involves reviewing patient details to determine the correct strength, dosage, and ingredients for every prescription based on the patient's weight, allergies, and medical conditions. James also has to ensure that patients are given the information they need about their medication, including how to administer the medicine and any specifications he followed in mixing the medicine.

James Forseth is a Pharm D. graduate from the University of Texas. He has been working with AllHealthcare Compounding Pharmacy since he graduated in 2010.
Control, simple task condition

James Forseth is a licensed pharmacist in the state. James chose to become a pharmacist because of his interest in biology, pharmaceuticals, and how the human body responds to diseases. A typical work day for James involves filling patient prescriptions, ensuring that the correct type and number of pills are given to patients and providing the information patients need about their medication.

James Forseth is a Pharm D. graduate from the University of Texas. He has been working at AllHealthcare Pharmacy since he graduated in 2010.

Control, complex task condition

James Forseth is a licensed compound pharmacist in the state. James chose to become a compound pharmacist because of his interest in biology, compound pharmaceuticals, and how the human body responds to diseases. A typical work day for James involves reviewing patient details to determine the correct strength, dosage, and ingredients for every prescription based on the patient's weight, allergies, and medical conditions. James also has to ensure that patients are given the information they need about their medication, including how to administer the medicine and any specifications he followed in mixing the medicine.

James Forseth is a Pharm D. graduate from the University of Texas. He has been working with AllHealthcare Compounding Pharmacy since he graduated in 2010.
### APPENDIX H: Stimuli in Pilot A, Essay Two

<table>
<thead>
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<th>Homogenous Team</th>
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<tr>
<td>Robert JONES</td>
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<td>Andrew WILLIAMSON</td>
<td>Sara SMITH</td>
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<td>Matthew HOUNSEL</td>
<td>Anne KLINEBERG</td>
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<td>James OLSEN</td>
<td>James OLSEN</td>
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APPENDIX I: Stimuli Pretests for Pilot Study C, Studies 1A-3, Essay Two

Matched Pair Characteristics

COMPARISONS OF MALE TEAM MEMBERS, STUDIES 1A, 2A, 3

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<th>Friendly</th>
<th>Attractive</th>
<th>Age</th>
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<td>M1</td>
<td>5.23 (1.36)</td>
<td>5.30 (1.34)</td>
<td>5.50 (1.33)</td>
<td>4.73 (1.36)</td>
<td>37.90 (4.02)</td>
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<td>5.14 (1.26)</td>
<td>5.55 (1.06)</td>
<td>5.45 (1.23)</td>
<td>4.65 (1.38)</td>
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<td>5.35 (1.44)</td>
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<td>5.29 (1.27)</td>
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<td>M6 vs. M7</td>
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Study 1A, 2A, 3 homogenous team: M1, M2, M4, and M6
Study 1A, 3 diverse team: M1, M3, M5, M7
Study 2A diverse team: M1, M2, M5, M7
COMPARISONS OF MALE TEAMS

*Key metrics were measured in separate samples using different methodologies. The statistics in the table below are calculated based on the summary table of paired comparisons and averaged sample sizes across cells.

| Group 1: M1, M2, M4, M6 VS. Group 2: M1, M3, M5, M7 | 5.23 (1.25) | 5.39 (1.17) | 5.47 (1.23) | 4.82 (1.42) | 40.51 (8.52) |
| Mean comparison | \( t = .06 \) | \( t = .39 \) | \( t = .54 \) | \( t = 1.15 \) | \( t = .34 \) |
| Mean comparison | \( p = .95 \) | \( p = .70 \) | \( p = .59 \) | \( p = .25 \) | \( p = .73 \) |

COMPARISONS OF INDIVIDUAL TEAM MEMBERS AND TEAM AVERAGE

*Key metrics were measured in separate samples using different methodologies. The statistics in the tables below are calculated based on the summary table of paired comparisons and averaged sample sizes across cells.

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<th>Morality</th>
<th>Two-sample test</th>
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<table>
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### COMPARISONS OF FEMALE TEAM MEMBERS, STUDIES 1B, 2B

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Study 1B, 2B homogenous team: F1, F2, F4, and F6
Study 1B diverse team: F1, F3, F5, F7
Study 2B diverse team: F1, F3, F5, F6

### COMPARISONS OF FEMALE TEAMS

| Group 1: F1, F2, F4, F6 | 5.36 (1.20) | 5.31 (1.12) | 5.40 (1.13) | 5.25 (1.28) | 38.10 (7.50) |
| VS. Group 2: F1, F3, F5, F7 | 5.37 (1.18) | 5.41 (1.17) | 5.41 (1.21) | 5.13 (1.27) | 36.58 (8.39) |

| Mean comparison | $t = .07$ | $t = .68$ | $t = .07$ | $t = .74$ | $t = 1.49$ |
|                | $p = .95$ | $p = .50$ | $p = .95$ | $p = .46$ | $p = .14$ |

*Calculated based on summary table of paired comparisons and averaged sample sizes
COMPARISONS OF INDIVIDUAL TEAM MEMBERS AND TEAM AVERAGE

*Key metrics were measured in separate samples using different methodologies. The statistics in the tables below are calculated based on the summary table of paired comparisons and averaged sample sizes across cells.

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Homogeneous team


By Jade Scipioni | Published Feb. 21, 2020 | Industries

Trevally Energy Services LLC is holding its 5-year investment planning meeting among its leadership team, comprised of the Executive Vice President, VP of Business Solutions, VP of Operations, and VP of Administration, all of whom are based out of and meeting in New York City, USA.

Trevally Energy Leadership

Robert JONES
Executive Vice President
New York City, USA

Matthew HOUNSEL
VP of Business Solutions
New York City, USA

Andrew WILLIAMS
VP of Operations
New York City, USA

James OLESEN
VP of Administration
New York City, USA

At the meeting the leadership team needs to decide whether to invest in highly profitable oil and gas ventures that could leak harmful chemical into the water supply of communities and schools that surround Trevally’s energy plants globally. Alternatively, the team could choose to invest in sustainable and green technology that would be significantly more expensive, but move them into the renewable energy sector and reduce potential risk to the surrounding communities.

This experienced leadership team has been at Trevally for 8 years, and has often dealt with consequential matters in their New York City office. The leadership has an important decision to make about whether to invest in profitable but potentially harmful oil and gas ventures or more expensive but safer green energy. The team needs to agree on a single course of action at the upcoming meeting.
Diverse team

By Jade Scipioni | Published Feb. 21, 2020 | Industries

Trevally Energy Services LLC is holding its 5-year investment planning meeting among its international leadership team, comprised of the Executive Vice President based out of the Spain office, VP of Business Solutions based out of the USA office, VP of Operations based out of the Germany office, and VP of Administration based out of the Brazil office, all of whom are meeting in New York City, USA.

**Trevally International Leadership**

![Felipe DE LA CRUZ](image)
Executive Vice President
Madrid, Spain

![Matthew HOUNSEL](image)
VP of Business Solutions
New York City, USA

![Niklas SCHNEIDER](image)
VP of Operations
Berlin, Germany

![Roberto GARCÍA](image)
VP of Administration
Rio de Janeiro, Brazil

At the meeting the international leadership team needs to decide whether to invest in highly profitable oil and gas ventures that could leak harmful chemical into the water supply of communities and schools that surround Trevally’s energy plants globally. Alternatively, the team could choose to invest in sustainable and green technology that would be significantly more expensive, but move them into the renewable energy sector and reduce potential risk to the surrounding communities.

This experienced leadership team has been at Trevally for 8 years, and has often dealt with consequential matters across their global offices. The leadership has an important decision to make about whether to invest in profitable but potentially harmful oil and gas ventures or more expensive but safer green energy. The team needs to agree on a single course of action at the upcoming meeting.
APPENDIX K: Stimuli in Studies 1A and 1B, Essay Two

**Male News Anchor Teams, Study 1A**

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<tr>
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Robert JONES  
Anchor/Reporter

Andrew WILLIAMSON  
Anchor/Reporter

Robert JONES  
Anchor/Reporter

Neal PATEL  
Anchor/Reporter

Matthew HOUNSEL  
Anchor/Reporter

James OLSEN  
Anchor/Reporter

James OLSEN  
Anchor/Reporter

Matt LIU  
Anchor/Reporter
Female News Anchor Teams, Study 1B

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<td>Nikita PATEL, Anchor/Reporter</td>
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APPENDIX L: Stimuli in Studies 2A and 2B, Essay Two

Male Leadership, Study 2A

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| ALLTALK, THE COOL NEW MOBILE COMPANY, FINDS ITSELF IN HOT WATER  
Amid allegations of sharing ex-customers' private information and violation of customer privacy, Alltalk's leadership denies knowledge and involvement  
Robert JONES  
Chief Technical Officer  
Matthew HOUNSEL  
Director of Information Systems | ALLTALK, THE COOL NEW MOBILE COMPANY, FINDS ITSELF IN HOT WATER  
Amid allegations of sharing ex-customers' private information and violation of customer privacy, Alltalk's leadership denies knowledge and involvement  
Robert JONES  
Chief Technical Officer  
Matthew HOUNSEL  
Director of Information Systems |
| Andrew WILLIAMSON  
Chief Information Officer  
James Olsen  
Director of Security Systems | Neal PATEL  
Chief Information Officer  
James Olsen  
Director of Security Systems |
Female Leadership, Study 2A

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<td><strong>ALLTALK, THE COOL NEW MOBILE COMPANY, FINDS ITSELF IN HOT WATER</strong>&lt;br&gt;Amid allegations of sharing ex-customers’ private information and violating customer privacy, Alltalk’s leadership denies knowledge and involvement.</td>
</tr>
<tr>
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<td><strong>Mary JONES</strong>&lt;br&gt;Chief Technology Officer</td>
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<td><strong>Amy OLESEN</strong>&lt;br&gt;Director of Security Systems</td>
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Telecommunications Data Breach Article

**ALLTALK, THE COOL NEW MOBILE COMPANY, FINDS ITSELF IN HOT WATER**

*Amid allegations of sharing ex-customers’ private information and violating customer privacy, Alltalk’s leadership denies knowledge and involvement*

The senior management of Alltalk (on right), one of the largest mobile messenger services, attended the Mobile Entrepreneurs’ event in San Francisco together last week. Alltalk and its leadership found themselves facing allegations of violating customer privacy last month.

Here’s a timeline of what happened and when.

**WHAT HAPPENED?**

About six months ago, in August of 2017, Alltalk’s ex-customers noticed that, even though they had closed their accounts at Alltalk and the company was no longer allowed to track their information, that some unauthorized entities had their most recent private information.

This information included phone numbers and email addresses that were added in recent weeks, credit card numbers and transaction from after account termination, and current GPS-tracked location, log-in records, and pictures.

One month ago, in December 2017, the affected ex-customers started questioning whether Alltalk was the source of the information leak.

**HOW DID IT HAPPEN?**

We spoke with some of these affected ex-customers, and it appears that information may have been leaked as early as one year ago. Many of these customers blame Alltalk and their privacy policy, which states that the company reserves the right to collect private information, but makes no claims about terminating information collection after an account is closed.

Typically, firms like Alltalk sell private customer data for a large profit.

Affected customers are suggesting that Alltalk may have deliberately continued collecting data on ex-customers and leaked the data themselves, or sold the data to a separate entity who leaked it. Either way, customers are outraged and seeking privacy protection.

Multiple news sources, including TechCrunch, have assigned investigators to look into these allegations and determine first whether the data leak was intentional, and second, who exactly is responsible for the data breach – Alltalk or someone else.

**WHAT DID THE TEAM SAY?**

Alltalk’s technical officers (shown above) issued a joint statement earlier this morning. The statement strongly denied any intentionality in the data leak. The technical officers are claiming that they could not have played a part in the data leak as they did not even know that any data had left the company servers. The team stated that they “never have, and never will, intend to do
We value consumer privacy, and intend to solve this problem in the near future.” We reached out to Alltalk, but they declined to comment further.
In 2011, Hollywood star Jessica Alba joined forces with Nick Vlahos and some investors to turn an idea into a billion-dollar company: The Honest Company. With Nick Vlahos (pictured below) as the CEO, the company grew rapidly. In 2015, Forbes featured The Honest Company on its cover, highlighting its commitment to non-toxic, organic products. But along with the fast growth came growing pains – and they keep coming.

The Honest Company focuses on creating household products using organic, non-toxic ingredients. This mission would be impossible to achieve without the Research and Development team that Vlahos leads (pictured below).

Over the past year, The Honest Company has faced multiple lawsuits over some of the ingredients used in its products. In 2016, parents filed lawsuits against The Honest Company for its sunscreen – they claimed that the sunscreen was not providing adequate sun protection, and the families using the sunscreen were finding their children sunburned. Another lawsuit was filed against the company’s laundry detergent. The product was advertised as a non-toxic product, but the label indicated it contained a potentially harmful ingredient.

In both cases, The Honest Company released statements clarifying the ingredients list for the products and confirming that the products did adhere to the company’s mission.

However, rumors are circulating about The Honest Company recalling their new baby powder, because customers are complaining that the baby powder is causing skin irritation and, in some
cases, rashes. Some customers are going as far as to blame the CEO, Nick Vlahos, for allowing such products to be sold if he knew about it and for not being more careful if he didn’t.
### COMPARISON OF TEAM MEMBERS

<table>
<thead>
<tr>
<th></th>
<th>Moral</th>
<th>Likable</th>
<th>Friendly</th>
<th>Attractive</th>
<th>Age</th>
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<tbody>
<tr>
<td><strong>M1</strong></td>
<td>5.74 (.98)</td>
<td>5.50 (1.11)</td>
<td>5.56 (1.38)</td>
<td>4.85 (1.40)</td>
<td>43.06 (6.04)</td>
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<tr>
<td><strong>M2</strong></td>
<td>5.83 (.96)</td>
<td>5.88 (.75)</td>
<td>6.34 (.87)</td>
<td>5.06 (1.05)</td>
<td>32.63 (5.28)</td>
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<td><strong>M3 vs. F1</strong></td>
<td>5.42 (1.06)</td>
<td>5.39 (1.20)</td>
<td>5.84 (1.07)</td>
<td>4.10 (1.40)</td>
<td>52.68 (8.43)</td>
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<tr>
<td></td>
<td>5.64 (.97)</td>
<td>5.63 (.85)</td>
<td>5.97 (.89)</td>
<td>4.57 (1.17)</td>
<td>56.47 (8.43)</td>
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<td>$F(1, 60) = .85$</td>
<td>$F(1, 60) = .26$</td>
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<td>$p = .40$</td>
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<td><strong>M4 vs. F2</strong></td>
<td>5.93 (.78)</td>
<td>6.10 (.82)</td>
<td>6.17 (.76)</td>
<td>5.83 (.85)</td>
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<td>5.51 (1.21)</td>
<td>5.71 (1.18)</td>
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Homogenous team: M1, M2, M3, and M4  
Diverse team: M1, M2, F1, and F2

### COMPARISONS OF TEAMS

<table>
<thead>
<tr>
<th>Group 1: M1, M2, M3, M4 VS. Group 2: M1, M2, F1, F2</th>
<th>5.73 (.98)</th>
<th>5.71 (1.02)</th>
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<th>4.94 (1.33)</th>
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<td>5.68 (1.03)</td>
<td>5.68 (.99)</td>
<td>5.92 (1.11)</td>
<td>5.08 (1.32)</td>
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## COMPARISONS OF INDIVIDUAL TEAM MEMBERS AND TEAM AVERAGE

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<td>Male 4</td>
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</tbody>
</table>
Final Stimuli: Walmart Ethics and Compliance Team

Homogeneous Team:

**Walmart: Maybe Not So Fair or Compliant**

FEB. 17, 2020 BY WILLIAM BOOTH, KARLA ADAM

With Valentine’s Day having just passed, Walmart’s Ethics and Compliance team (*see right picture*) may likely soon be facing a compliance crisis.

Green America, a group dedicated to promoting fair trade and reporting ethical digressions, recently released the Chocolate Retailer Scorecard, which rates major retailers on their adherence to ethical and fair trade regulations. According to this scorecard, Walmart allegedly failed to comply with ethical standards around eliminating child labor. Per Green America, Walmart may have sourced and sold chocolate that was made using child labor in foreign countries.

The Ethics and Compliance team has released a statement claiming that if Green America is correct and that child labor was in fact used in the making of millions of Valentine’s Day chocolates, it was done without Walmart’s knowledge. Further, the team has pointed to the 2019 Walmart Environmental, Social, and Governance Report, which summarizes Walmart’s efforts to combat unethical practices, as evidence of their adherence to ethical standards.
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APPENDIX O: Stimuli in Study 1, Essay Three

Male focal person with attractive wife

Male focal person with unattractive wife
Female focal person with attractive wife

Female focal person with unattractive wife
APPENDIX P: Stimuli in Study 2, Essay Three

Male focal person with attractive wife

Alltalk Data Breach: Head of Security Denied Intentional Data Leakage

by Chris Isidore @CNNMoney
June 28, 2016: 2:09 PM ET

John Gardner, CISO of Alltalk, and his wife at the Mobile Entrepreneurs’ Event

John Gardner, the Chief Information Security Officer of one of the largest mobile messenger service Alltalk, flatly denied the allegation that the company has provided access to over a million of private user data to a third-party application. Mr. Gardner has been in charge of implementing and maintaining information assets of Alltalk since 2013.

The company revealed earlier this month that a security breach due to a misconfigured database had exposed 145 million consumer accounts, including credit and debit card accounts, names, telephone numbers, and email addresses. However, prosecutors have begun investigating whether the user data was intentionally leaked and sold by insiders with intimate knowledge of the security procedures.

“I am very sorry for the situation, and I apologize to our users,” Mr. Gardner said Thursday, as he attended the Mobile Entrepreneurs’ Event in San Francisco. “We take responsibilities for what happened, and we are strengthening our data security capabilities and procedures to help ensure this type of incidents does not occur again. We will also cooperate with authorities if further investigation ensues.”
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Female focal person with attractive husband

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APPENDIX Q: Stimuli in Study 3, Essay Three

Attractive wife, control condition

Community X: Alltalk Privacy Scandal: Head of Security Denied Intentional Tracking

by Chris Isidore @CNNMoney
June 28, 2016, 2:09 PM ET

John Gardner and his wife Emily

John Gardner, the Chief Information Officer of Alltalk, one of the largest mobile messenger services, attended the Mobile Entrepreneurs’ event in San Francisco with his wife Emily on Thursday. This is the first time Mr. Gardner made his public appearance after the data breach scandal.

Alltalk has run into privacy issues with its GPS-based system, which may continue to track users’ information even after a customer cancels the service. Alltalk changed its privacy policy in December 2013, indicating that it reserves the right to share data it collected – such as location, log-in records, and pictures – with other companies. This is true even for users who have cancelled the service. Earlier this month, Mr. Gardner conceded Alltalk’s mistakes in handling the non-user data after security research discovered it. He explained this happened due to a misconfigured database. However, many have questioned whether the non-user data was intentionally collected and sold by the company.

Mr. Gardner flatly denied the allegation that company knowingly tracked the non-user data. “We never have, and never will, intend to do this.” Mr. Gardner said at the interview. “We take responsibilities for what happened, and we are strengthening our privacy policy for both current and previous users to help ensure this type of incidents does not occur again.”
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by Chris Isidore @CNIMoney
June 28, 2016: 2:09 PM ET

John Gardner, the Chief Information Officer of Alltalk, one of the largest mobile messenger services, attended the Mobile Entrepreneurs’ event in San Francisco with his wife Emily Howard, the daughter of the hedge-fund billionaire James Howard, on Thursday. This is the first time Mr. Gardner made his public appearance after the data breach scandal.

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APPENDIX R: Stimuli in Study 4, Essay Three

Attractive wife
Meet the Dealer

John Gardner
Owner
115 S. Divieland St. Harlem
(713) 811-6525

About John
I have over 10 years of automotive experience. I made Houston Texas my home in 1990 after moving here from Louisiana to work for dealership called Chevy Land. At some point in my automotive career, I decided that what I really wanted was to own and operate my own business. In 2008, I had an opportunity to open my own dealership. I am responsible for all aspects of the business.

“I consider customers like family. My mission is to provide an inviting and transparent experience and sell the best cars money can buy while providing excellent customer service and being involved in the community.”

I carry a great selection of more than 800 used cars as well as trucks, vans, SUVs and crossover vehicles. Bad Credit? No Credit? No Problem! Let our in-house auto financing staff help you find the pre-owned vehicle that fits your style and budget.

With my wife Emily

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Unattractive wife
Attractive wife, control condition

Candidacy Announcement: Chad Smith for Mayor
By JONATHAN MARTIN

Local resident, Chad Smith, announced his candidacy for Mayor of Springfield yesterday. Mr. Smith made his announcement outside of City Hall, and spoke about his desire to beautify the city and introduce new industries to boost the economy.

Mr. Smith’s wife Lauren was also in attendance at the announcement. The couple married in 2010, and have been living in Springfield since then. Chad Smith has participated in the city’s replanting initiative to grow the tree population and develop parks for young families. During one of those initiatives, Chad Smith expressed his desire to play a more prominent role in the city’s growth and planning.

When asked to comment after the candidacy announcement, Chad Smith said he was “excited to finally be taking steps toward actively shaping and improving Springfield.”
Unattractive wife, weak relationship

Springfield Local News

Candidacy Announcement: Chad Smith for Mayor
By JONATHAN MARTIN

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Despite rumors of a second divorce, Mr. Smith’s wife Lauren was also in attendance at the announcement. The couple first married in 2010, but separated in 2011 and divorced in 2012. At the time, Chad Smith was participating in the city’s replanting initiative to grow the tree population and develop parks for young families. During one of those initiatives, Chad Smith expressed his desire to play a more prominent role in the city’s growth and planning.

When asked about his divorce in 2012, Chad Smith said, “We took some time apart for several months to see if absence makes the heart grow fonder, and unfortunately it did not.” However, Chad and Lauren Smith tied the knot again in July 2013. In January 2015, Chad Smith filed for divorce a second time. Though they withdrew that petition, Lauren Smith recently filed for divorce again. “We got married, we got divorced. We got remarried, we filed for divorce, we retracted that divorce. We filed for divorce again recently,” Lauren Smith said. Both refused to comment on the status of their divorce filings after the candidacy announcement.

When asked to comment after the candidacy announcement, Chad Smith said he was “excited to finally be taking steps toward actively shaping and improving Springfield.”