

# Can Confidence Influence Persuasiveness in Disagreements by Conveying Competence versus Dominance? The Moderating Role of Competitiveness

Laura Rees<sup>1\*</sup> , Ming-Hong Tsai<sup>2\*</sup> , Shirli Kopelman<sup>3</sup> , & Hsiu-Hua Hu<sup>4</sup> 

\*Denotes equal first-authorship

- 1 College of Business, Oregon State University, United States of America
- 2 School of Social Sciences, Singapore Management University, Singapore
- 3 Stephen M. Ross School of Business, University of Michigan, United States of America
- 4 Department of International Business, Ming Chuan University, Taiwan

## Keywords

Confidence, Competence, Competitiveness, Dominance, Persuasiveness

## Correspondence

Laura Rees, College of Business, Oregon State University, 2751 SW Jefferson Way, Corvallis, OR 97331 USA

[laura.rees@oregonstate.edu](mailto:laura.rees@oregonstate.edu)

[doi.org/10.34891/y2w2-qy05](https://doi.org/10.34891/y2w2-qy05)

## Abstract

Research has demonstrated that confident individuals gain social influence because their confidence signals competence rather than dominance in settings in which they do not experience a disagreement with others. We extend this research by exploring felt competitiveness, as reflected by perceptions of goal opposition between perceivers and others. In settings where people experience a disagreement, we explore the impact of felt competitiveness on the association between expressed confidence and social perceptions of the expresser's competence and dominance, and how these shape persuasiveness. We conducted a field study examining dyadic interactions between coworkers (Study 1) and two experiments manipulating competitiveness and confidence (Studies 2-3). Results showed that high competitiveness neutralizes the positive association between expressed confidence and perceived competence, thus eliminating the positive indirect effect of expressed confidence on persuasiveness. Results also demonstrated a stronger positive association between expressed confidence and perceived dominance when competitiveness is higher. However, perceived dominance did not consistently predict persuasiveness, suggesting that the dominance results should be interpreted with caution. Overall, our findings offer novel implications regarding how the social influence processes of confidence expressions are shaped by felt competitiveness.

## Data Availability Statement

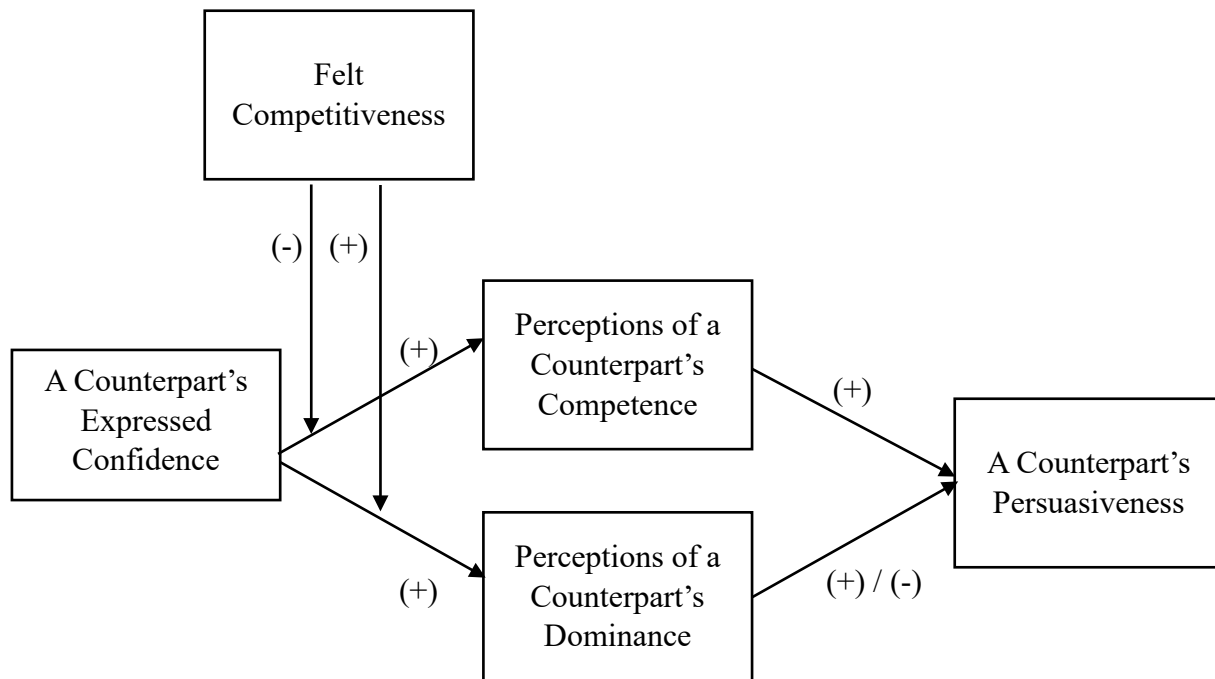
All data are at [https://osf.io/qmtw8/?view\\_only=d6ab6c5722d048d1b7774c14be3cebad](https://osf.io/qmtw8/?view_only=d6ab6c5722d048d1b7774c14be3cebad). Pre-registrations can be found at [https://aspredicted.org/blind.php?x=GFE\\_EKW](https://aspredicted.org/blind.php?x=GFE_EKW) (Study 2) and <https://aspredicted.org/blind.php?x=2mw5eg> (Study 3). Study 1 was not pre-registered.

## Introduction

Expressed confidence, or the extent to which people display *certainty* regarding their favorable attitudes toward their ideas regarding task issues (Owens, 1993), creates different social perceptions that may persuade perceivers to make specific decisions. Prior research has shown that expressed confidence can signal task-relevant competence (Anderson et al., 2012) and create an impression of dominance (Kimble & Seidel, 1991). Research has also examined whether a speaker's expressed confidence persuades participants to make a specific choice by conveying the speaker's competence and dominance (Van Zant & Berger, 2020). Specifically, Van Zant and Berger (2020) found that expressed confidence increased persuasiveness via perceptions of competence rather than dominance. Importantly, these authors explore expressed confidence and perceptions of competence and dominance in a context in which individuals did not form preferences or disagree with the expresser's proposal before making choices. In contrast, when people have conflict with one another, they tend to affirm their distinct opinions and question others' competence (Langfred, 2007). Thus, when people experience disagreements in which they have already formed opinions, individuals may view others' expressed confidence as a tool to dominate others rather than as a cue of competence.

To examine social perceptions of confidence in conflict situations, we investigate the contingent links between a counterpart's expressed confidence and perceptions of the counterpart's competence and dominance during disagreements regarding task-relevant issues. By "counterpart" we refer to a coworker or a co-decider for a task. Specifically, we explore the moderating effects of felt competitiveness on the relationships between expressed confidence and perceptions of competence and dominance during a task disagreement. Felt competitiveness describes situations in which perceivers experience that their goals are in opposition to a counterpart's goals; they are more likely to succeed when the counterpart fails (Tjosvold et al., 2022). Tjosvold and colleagues (2022) also distinguish competitiveness from conflict (e.g., task-relevant or interpersonal disagreement); these authors regard competitiveness as a separate factor that influences interactions in conflict situations. Thus, we consider felt competitiveness as a moderator that differs from our study context of task-relevant disagreement.

Moreover, we expect that higher competitiveness will lead perceivers to view expressed confidence both as a signal of less competence and as a signal of more dominance because people tend to discount a perceived competitor's knowledge (Menon & Blount, 2003) and focus on actions conveying self-interest motives in a competitive climate (Tjosvold et al., 2022). Therefore, we examine the indirect interaction effects of confidence expressions and felt competitiveness on persuasiveness via perceived competence and dominance. Persuasiveness indicates the extent to which a counterpart influences the perceivers who initially have dissenting opinions with the counterpart (Chang et al., 2018). Overall, our investigation provides theoretical and practical implications for how people can display confidence to convey social perceptions and optimize their persuasiveness. Figure 1 presents the model tested across studies.

**Figure 1.** Conceptual Model

Note: We use the sign “(-)” or “(+)” to indicate the weakening or strengthening effect of felt competitiveness. Specifically, it weakens the positive association between a counterpart’s confidence expression and perceived counterpart competence. Moreover, it strengthens the positive association between a counterpart’s confidence expression and perceived counterpart dominance.

Our work contributes to research on confidence and its social influence processes in two aspects. First, we examine whether a counterpart’s confidence expression signals competence and dominance and thus shapes persuasiveness in a novel context (i.e., during task-relevant disagreements). Existing research has investigated the interpersonal impacts of confidence only in a “non-disagreement” context (e.g., Anderson et al., 2012; Kennedy et al., 2013), whereas our studies add contextual nuance to the interpersonal effects of confidence. Our investigation also differs from most existing work that has examined the benefits of improving self-confidence in a conflict context without investigating perceptions of another’s confidence (e.g., Brown & Baer, 2011; Martin & Phillips, 2017). Second, we explore the moderating effects of felt competitiveness on the relationships between expressed confidence and interpersonal perceptions of expressers. In non-disagreement contexts, research has commonly shown the positive effects of expressed confidence on perceived competence and interpersonal influence (e.g., Anderson et al., 2012; Kennedy et al., 2013), and has found inconsistent links between expressed confidence and perceived dominance, including significant positive relationships (Kimble & Seidel, 1991) and non-significant relationships (Van Zant & Berger, 2020). However, we propose different conditional relationships between expressed confidence and perception outcomes during disagreements, depending on the level of felt competitiveness. That is, we anticipate a weaker relationship between expressed confidence and perceived competence and a stronger link between expressed confidence and perceived dominance when felt competitiveness is higher. In turn, we expect these relationships to affect persuasiveness.

### **Effects of Expressed Confidence on Perceived Competence and Dominance**

Expressed confidence may create perceptions of both competence and dominance. Expressed confidence often signals relevant expertise (Van Zant & Berger, 2020), thus enhancing competence perceptions, or evaluations of productiveness and effectiveness at work or with a task (Tsai et al., 2020). Empirical evidence also supports positive associations between confident claims and competence perceptions. That is, individuals who express more confidence in their ideas are rated as more competent by others (Anderson et al., 2012). Relatedly, when advisors display more confidence in their recommendations, they receive higher competence ratings from others (Sniezek & Van Swol, 2001).

In contrast, expressed confidence may also foster dominance perceptions because confident individuals focus on their interests and undermine others' suggestions, such as discounting others' advice (See et al., 2011) and preventing others from participating in a task (Locke & Anderson, 2015). Dominance perceptions describe assessments of a person's assertiveness and forcefulness over others (Anderson & Kilduff, 2009). These perceptions differ from confidence because dominance perceptions involve overall assessments of a trait and do not contain task-related cues, whereas expressing confidence indicates task-relevant information (Locke & Anderson, 2015). Prior work does suggest connections between confidence and dominance: more confident people who speak with greater intensity are perceived as conveying higher levels of assertiveness (Kimble & Seidel, 1991), and speakers who read arguments involving confident phrases (e.g., "obviously") aloud are rated as more dominant than those who read the same arguments with doubtful phrases (e.g., "I don't know"; Scherer et al., 1973). Further, individuals who receive confidence training are perceived as more dominant than those without training (Li et al., 2020). However, other work has demonstrated a non-significant association between perceptions of a speaker's confidence and dominance (Van Zant & Berger, 2020). Some researchers also argue that confidence does not necessarily convey a desire to control others and thus is differentiated from dominance (Locke & Anderson, 2015). Therefore, based on prior research, expressed confidence effectively signals competence and inconsistently conveys dominance in non-disagreement contexts.

### **Competitiveness Weakens the Effect of Expressed Confidence on Perceived Competence**

We propose that felt competitiveness weakens the positive association between confidence expressions and perceived competence. As discussed previously, expressed confidence enhances perceived competence because this expression signals task-relevant knowledge (Van Zant & Berger, 2020). However, according to the relational model of knowledge valuation (Menon & Blount, 2003), a confident competitor's knowledge may be underestimated. This model predicts that perceivers will discount an internal group member's knowledge (e.g., a work colleague's expertise) because they fear a loss of their status if the member's ideas are used instead of their own (Menon & Pfeffer, 2003). When the perceivers' proposals are less valuable than the member's proposals, perceivers experience negative feelings that motivate them to defend their ideas (Menon & Blount, 2003). Research has also shown that people feel reluctant to use a rival colleague's knowledge due to concerns about poor self-image, such as having a lack of originality and independence (Menon et al., 2006). Thus, we expect that a counterpart's expressed confidence will less effectively convey competence under high competitiveness because perceivers may discount the confident counterpart's knowledge.

*H1.: The positive relationship between a counterpart's expressed confidence and perceptions of the counterpart's competence during a disagreement will be moderated by felt competitiveness, such that the positive relationship will be weaker when competitiveness is higher.*

### **Competitiveness Enhances the Effect of Expressed Confidence on Perceived Dominance**

We propose that felt competitiveness strengthens the positive association between expressed confidence and perceived dominance. As noted above, expressed confidence can convey dominance because confident people may be seen as focusing on their own interests rather than others' (See et al., 2011). Such self-interest is more salient for perceivers under higher competitiveness and thus encourages the pursuit of personal gain at the expense of others (Tjosvold et al., 2004). For example, competitiveness has been shown to motivate people to impede others' objectives, such as through disseminating deceptive information and creating hindrances to others' work, because individuals anticipate that these actions will increase the likelihood of achieving their individual goals (Tjosvold et al., 2022). Individuals also continually compare their achievements with others' accomplishments to maintain their positive standing in a competitive climate (Mohd. Shamsudin et al., 2023). Consequently, perceivers are likely to view a confident individual as more self-interested when competitiveness is higher, thus enhancing the association between expressed confidence and perceived dominance.

*H2.: The positive relationship between a counterpart's expressed confidence and perceptions of the counterpart's dominance during a disagreement will be moderated by felt competitiveness, such that the positive relationship will be stronger when competitiveness is higher.*

### **The Positive Association between Competence and Persuasiveness**

Our model further proposes a positive association between perceptions of a counterpart's competence and the counterpart's persuasiveness because perceptions of competence reflect assumptions about the expresser's likely beneficial contributions to the task (Berger et al., 1980). Moreover, when individuals are perceived as more competent, they are more likely to influence others, as perceivers recognize this competence can help the whole group succeed (Berger et al., 1972). Supporting the positive link between perceived competence and influence, research has shown that perceptions of others' competence are positively related to perceivers' acceptance of the others' dissenting opinions (Dooley & Fryxell, 1999), advice-taking (Sniezek & Van Swol, 2001), and perceivers' willingness to follow a partner's leadership (Ho et al., 2012). Therefore, perceived competence should positively predict persuasiveness. Taken together, we propose:

*H3.: A counterpart's expressed confidence has a weaker positive indirect effect on the counterpart's persuasiveness via perceptions of the counterpart's competence during a disagreement when felt competitiveness is higher.*

### **The Positive or Negative Association between Dominance and Persuasiveness**

Finally, our model posits that perceptions of a counterpart's dominance may be positively or negatively associated with the counterpart's persuasiveness during disagreements. A positive association may be due to a sense of urgency or pressure created by dominance (Van Zant & Berger, 2020), which can compel perceivers to give in to the dominant person. To this point, research has demonstrated that dominance prompts concessions from a more submissive party (Cheng et al., 2013). Relatedly, people with higher levels of trait dominance have been shown to influence others in various joint tasks, such as performing mechanical assignments (Smith & Foti, 1998) and distributing

resources to workers in a hypothetical organization (Anderson & Berdahl, 2002). However, perceived dominance may reduce persuasiveness because dominance elicits negative reactions (Driskell et al., 1993). Supporting this reasoning, research has demonstrated that when people exhibit more dominance, they are less likely to achieve agreements (Brett et al., 2007) and more likely to create interpersonal conflicts (Strayer & Strayer, 1976). Thus, perceived dominance may positively or negatively predict persuasiveness. Jointly, we examine the mediating effects of perceived dominance based on the two competing hypotheses:

**H4a.:** *A counterpart's expressed confidence has a stronger positive indirect effect on the counterpart's persuasiveness via perceptions of the counterpart's dominance during a disagreement when felt competitiveness is higher.*

**H4b.:** *A counterpart's expressed confidence has a stronger negative indirect effect on the counterpart's persuasiveness via perceptions of the person's dominance during a disagreement when felt competitiveness is higher.*

## Overview of the Studies

To test our hypotheses, we conducted three studies that captured interpersonal processes between coworkers (Study 1) and with a preprogrammed counterpart (Studies 2 and 3; experiments) in disagreement situations. The experiments were designed to replicate and extend Study 1 by including a behavioral measure of persuasiveness rather than relying on self-report, and by manipulating confidence expression and felt competitiveness. Studies 2 and 3 also tested the generalizability of the findings in a student sample (Study 2) and in a sample of adults from the general population (Study 3). Additionally, our studies build on one another by examining the cross-cultural generalizability of the findings across Asian (Taiwan in Study 1) and North American (Canada in Study 2, the US in Study 3) samples. Finally, given that social influence has been shown to decrease with age (e.g., Knoll et al., 2015), we also targeted samples that differed in age (mid-to-late 30s for Studies 1 and 3, early 20s for Study 2) to examine the robustness of our results.

To promote transparency and openness, all study materials, data, information on key analysis syntax, codes, and software used, and additional supplemental analyses are available at [https://osf.io/qmtw8/?view\\_only=d6ab6c5722d048d1b7774c14be3cebad](https://osf.io/qmtw8/?view_only=d6ab6c5722d048d1b7774c14be3cebad). Pre-registrations for Studies 2 and 3 can be found at [https://aspredicted.org/blind.php?x=GFE\\_EKW](https://aspredicted.org/blind.php?x=GFE_EKW) (Study 2) and <https://aspredicted.org/blind.php?x=2mw5eg> (Study 3). Study 1 was not pre-registered. Sample sizes were determined by the maximum number of available participants in the organization (Study 1) and the rate of voluntary signups in the university study pool (Study 2). The Study 3 sample size was predetermined based on available resources. All analyses were conducted only after study completion.

## Study 1: Three-wave Field Surveys with Coworker Dyads

### Study Setting, Participants, Procedures, and Design

The top executive in a biotechnology business group in Taiwan (incorporated in 1945) accepted our request to collect data from employees in two of the pharmaceutical firms within the business group. Employees responded to the survey questions based on their observations regarding their interactions with their assigned coworker. Managers provided a list of 125 coworker dyads in which the two employees make joint decisions. Managers were asked to create these dyads manually based on appropriate pairings given what they knew about the work roles and decision processes. To

avoid unintentional demand effects, participants were told a coworker's name was randomly assigned to them. They were informed to answer the survey questions regarding one specific coworker (participants saw the same name for each wave). Please see the supplemental materials for the list of survey questions. Participants were assured that all responses were confidential and neither managers nor any coworkers would have access to their responses. Study administrators scheduled multiple company visits to complete data collection. All employees agreed to complete the three-wave survey (25.60% male, 69.60% female, 4.8% other<sup>1</sup>: those who did not identify within the gender binary or preferred not to disclose gender information;  $M_{age} = 38.46$  years,  $SD_{age} = 10.12$  years;  $M_{time\ worked\ with\ coworkers} = 3.40$  years,  $SD_{time\ worked\ with\ coworkers} = 4.07$  years;  $M_{tenure} = 7.42$  years,  $SD_{tenure} = 8.45$  years).

We used two weeks as the interval between survey waves because an interval of at least two weeks effectively reduces inflated relationships between constructs (Johnson et al., 2011). Paper surveys were administered in meeting rooms of the pharmaceutical firms with sufficient distance between participants so they could not read others' responses. To facilitate compiling responses across waves and mitigate potential social desirability concerns, each participant used a unique pseudonym. Study administrators also informed participants that responses would be reviewed only by the research team and any personally identifying information would be removed after the data were compiled. The survey items were presented using the official language in Taiwan (i.e., Mandarin Chinese). We followed Brislin's (1986) protocol for translating survey instruments. We first developed and/or selected scales in English from existing research. Next, following the procedure used in prior work (Farmer et al., 2003), one bilingual author engaged in translation and another performed back-translation for all survey instructions and items, repeating the process until convergence was reached. The first wave of the survey included scales of a coworker's confidence (other-ratings as well as self-ratings as a control variable), competitiveness between participants and their coworkers, and participants' demographics. The second wave included scales of the coworker's competence and dominance. The third wave included a scale of the coworker's persuasiveness.

## Measures

**Perceived coworker confidence (other-ratings).** Participants rated four statements (1 = not at all; 7 = extremely,  $\alpha = 0.95$ ): "When my coworker and I disagree, my coworker is confident/self-assured/sure/certain about his/her dissenting opinions." These adjectives were included from existing confidence scales (e.g., Kleitman & Stankov, 2007; Martin Allwood et al., 2008; Sander & Sanders, 2009) and were cross-checked as synonyms of the word "confident" in a dictionary.

**Competitiveness.** Participants evaluated five statements regarding felt competitiveness with their coworkers (1 = strongly disagree; 7 = strongly agree,  $\alpha = 0.87$ ), adapted from Tjosvold et al. (2003) by replacing "team members" with "we" and "the other person" to fit our study context. Sample items are: "We structure things in ways that favor our individual goals rather than the other person's goals," and "We have a 'win-lose' relationship."<sup>2</sup>

<sup>1</sup> The results of ANOVA demonstrated that neither participants' genders nor coworkers' genders were significantly associated with any outcome variables. We also did not find any significant association between the length of time participants had worked with coworkers and any outcome variables. Thus, we did not include gender-related variables or length of time as control variables in subsequent analyses.

<sup>2</sup> Similar to other research that focused on individual perceptions of competitiveness (e.g., Tjosvold, 1988b), we did not find shared perceptions of competitiveness within a coworker dyad (intra-class

**Coworker competence and dominance.** Participants responded to a three-item competence scale (1 = not at all; 7 = very much so,  $\alpha = 0.97$ ) that was adapted from Tsai et al. (2020) by adding a disagreement stem (“When...disagree”) and using the term coworker rather than partner: “When my coworker and I are working on a task together about which we disagree, my coworker is competent/effective/productive at the task.” The three-item dominance scale (1 = strongly disagree; 7 = strongly agree,  $\alpha = 0.86$ ) was similarly adapted from Anderson and Kilduff (2009): “When my coworker and I are working on a task together about which we disagree, my coworker is dominant/assertive/ forceful.”

**Coworker persuasiveness.** Participants rated four statements (1 = strongly disagree; 7 = strongly agree,  $\alpha = 0.92$ ) adapted from Chang et al. (2018) by replacing their original stem (regarding Facebook posts) with our disagreement stem: “When my coworker and I are working on a task together about which we disagree, my coworker’s opinions are persuasive/compelling/logical/plausible.”

**Control variable: coworker felt confidence (self-ratings).** We also measured self-ratings of confidence as a control variable. Participants’ coworkers indicated their own confidence using a four-item scale (1 = not at all; 7 = extremely,  $\alpha = 0.96$ ). Items for self-rated confidence were: “When my coworker and I disagree, I am confident/self-assured/sure/certain about my dissenting opinions.”

## Results and Discussion

Table 1 shows descriptive statistics and correlations for the major variables in Study 1.<sup>3</sup>

**Distinguishing measures.** We conducted comparative confirmatory factor analyses (CFAs) to examine discriminant validity. We used the following standards from Kline (2011): a comparative fit index of at least .90 (i.e.,  $CFI \geq .90$ ) and a standardized root mean square residual of less than .10 (i.e.,  $SRMR < .10$ ). Fit statistics met acceptable standards for the six-factor model:  $\chi^2 = 537.70$ ,  $df = 215$ ,  $p < .001$ ,  $CFI = .94$ ,  $SRMR = 0.06$ . The results of chi-squared difference tests confirmed that the six-factor model achieved a significantly better fit than did other alternative models (i.e., five-, four-, three-, two-, and one-factor models), all  $ps < .001$ .<sup>4</sup>

**Hypothesis testing.** We conducted multiple mixed-effects regression analyses with a maximum likelihood approach and utilized dyad identification numbers as a random intercept to

---

correlation = 0.00,  $p = .728$ ), which suggests individuals within the same dyad can and do perceive the competitiveness between them independently. This result aligns with related findings on reciprocity and meta-perceptions of competitiveness in coworker dyads (Eisenkraft, Eifenbein, & Kopelman, 2017). That is, these perceptions do not necessarily align between dyad members but depend on how each person views the relationship.

<sup>3</sup> We investigated but did not find any evidence for common method variance (CMV). Please see related analyses and results in the section titled “An Investigation on Common Method Variance in Study 1” in the supplemental materials.

<sup>4</sup> Please see the detailed results of chi-squared difference tests in the section titled “Results of Confirmatory Factor Analyses and Chi-squared Difference Tests in Study 1” in the supplemental materials.



control for any dyad differences (see Table 2).<sup>5</sup> For comprehensiveness, we first examined the effects of confidence and competitiveness on persuasiveness. Model 1 results showed confidence was positively associated with persuasiveness ( $B = 0.54, SE = 0.05, p < .001$ ).<sup>6</sup> Model 2 results showed a non-significant interaction between confidence and competitiveness on persuasiveness ( $B = -0.05, SE = 0.03, p = .084$ ).

We also found significant main effects of confidence and competitiveness in addition to our hypothesis testing. Model 3 results demonstrated that perceived coworker confidence was positively associated with perceived coworker competence ( $B = 0.40, SE = 0.06, p < .001$ ). Hypothesis 1 proposed competitiveness as a moderator to the confidence-competence link, specifically, weakening the positive link at higher levels of competitiveness. To test Hypothesis 1, Model 4 showed a significant interaction effect between coworker confidence and competitiveness on coworker competence ( $B = -0.09, SE = 0.04, p = .011$ ). To probe the interaction effect, we used a margin estimation method (Williams, 2012), which allows for simple slope analyses in the full range of a moderator measure. Given that participants' average competitiveness scale scores ranged from 1 to 7 and participants indicated ratings from 1 to 7 for each competitiveness item, we performed simple slope analyses (i.e., the conditional effects of confidence) based on the scores of competitiveness from 1 to 7. Other researchers have also similarly used participants' responses to a moderator questionnaire, such as age in years (Piszczek & Pimputkar, 2020), to determine the cutoff points of simple slope analyses. Table 3 demonstrates the pattern of the interaction effect. The results demonstrated that when competitiveness was higher than the scale midpoint (4), the positive associations between coworker confidence and coworker competence became non-significant (all  $ps > .10$ ). Thus, these results supported Hypothesis 1.

Hypothesis 2 proposed competitiveness as a moderator to the confidence-dominance link, specifically, strengthening the positive link at higher levels of competitiveness. Model 5 demonstrated that confidence was positively related to dominance ( $B = 0.22, SE = 0.07, p < .001$ ). Competitiveness was also positively associated with dominance ( $B = 0.23, SE = 0.07, p < .001$ ). To test Hypothesis 2, Model 6 showed a significant interaction effect between confidence and competitiveness on dominance ( $B = 0.09, SE = 0.04, p = .039$ ). Specifically, when perceived competition was the lowest score (1), the positive association between coworker confidence and coworker dominance became non-significant (see the results in Table 3;  $B = 0.09, SE = 0.09, p = .317$ ). Overall, these results supported Hypothesis 2.

---

<sup>5</sup> We also calculated intra-class correlations (ICCs) for the outcome variables to evaluate the effects of dyad differences. The results demonstrated that dyad differences did not significantly influence the analyses involving coworker competence ( $ICC = .00; p = .873$ ), coworker dominance ( $ICC = .00; p = .894$ ), or coworker persuasiveness ( $ICC = .00; p = .949$ ).

<sup>6</sup> To be consistent with our theoretical predictions, we used perceived (i.e., other-rated) coworker confidence in the regression analyses in the manuscript. However, as noted in the measures section, we conducted separate analyses using coworkers' self-rated confidence as an additional predictor (control variable) for the regression analyses reported in the manuscript. We found that the inclusion of this variable did not significantly change the results. Coworkers' self-rated confidence did not significantly predict coworker competence or persuasiveness. Please see the relevant results of these additional regression analyses in the section titled "Regression Analyses in Study 1 with Coworker Felt Confidence as a Control" in the supplemental materials.

**Table 1.** Means, Standard Deviations, and Correlations of Focal Variables in Study 1

Variables	Mean	SD	1.	2.	3.	4.	5.
1. Coworker felt confidence	4.52	1.36					
2. Coworker confidence	4.84	1.42	0.16*				
3. Felt competitiveness	2.57	1.39	-0.11	-0.19**			
4. Coworker competence	5.19	1.45	0.01	0.38***	-0.03		
5. Coworker dominance	3.69	1.55	0.06	0.17**	0.17**	0.15*	
6. Coworker persuasiveness	4.81	1.37	0.04	0.55***	-0.11	0.64***	0.23***

Note: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . Coworker felt confidence is measured as a self-rating (i.e., from the expresser's, or target's, perspective), all other measures are perceiver-ratings (i.e., the perceiver's judgments of the target and the competitiveness between them felt by the perceiver).

**Table 2.** Regression Analyses in Study 1

Variables	Model 1 DV: Coworker persuasiveness	Model 2 DV: Coworker persuasiveness	Model 3 DV: Coworker competence	Model 4 DV: Coworker competence	Model 5 DV: Coworker dominance	Model 6 DV: Coworker dominance	Model 7 DV: Coworker persuasiveness
<b>Predictors</b>							
Coworker confidence	0.54*** (0.05)	0.68*** (0.10)	0.40*** (0.06)	0.64*** (0.11)	0.22*** (0.07)	0.01 (0.12)	0.38*** (0.08)
Competitiveness	0.00 (0.05)	0.26 (0.16)	0.05 (0.06)	0.50** (0.19)	0.23*** (0.07)	-0.18 (0.21)	0.05 (0.14)
Coworker confidence × Competitiveness		-0.05 (0.03)		-0.09* (0.04)		0.09* (0.04)	-0.02 (0.03)
Coworker competence							0.46*** (0.05)
Coworker dominance							0.09* (0.04)
$R^2$	.31	.31	.15	.17	.07	.08	.53
Wald $\chi^2$	110.88***	115.69***	44.00***	51.66***	18.27***	22.86***	287.85***

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . All measures are perceiver-ratings of a target coworker (expresser). All regression coefficients are unstandardized. Numbers in parentheses represent standard errors. DV is used to indicate dependent variable. We used the R-squared value created by Rabe-Hesketh and Skrondal (2008) for mixed-effects regression models.

**Table 1.** Means, Standard Deviations, and Correlations of Focal Variables in Study 1

Variables	Mean	SD	1.	2.	3.	4.	5.
1. Coworker felt confidence	4.52	1.36					
2. Coworker confidence	4.84	1.42	0.16*				
3. Felt competitiveness	2.57	1.39	-0.11	-0.19**			
4. Coworker competence	5.19	1.45	0.01	0.38***	-0.03		
5. Coworker dominance	3.69	1.55	0.06	0.17**	0.17**	0.15*	
6. Coworker persuasiveness	4.81	1.37	0.04	0.55***	-0.11	0.64***	0.23***

Note: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . Coworker felt confidence is measured as a self-rating (i.e., from the expresser's, or target's, perspective), all other measures are perceiver-ratings (i.e., the perceiver's judgments of the target and the competitiveness between them felt by the perceiver).

**Table 2.** Regression Analyses in Study 1

Variables	Model 1 DV: Coworker persuasiveness	Model 2 DV: Coworker persuasiveness	Model 3 DV: Coworker competence	Model 4 DV: Coworker competence	Model 5 DV: Coworker dominance	Model 6 DV: Coworker dominance	Model 7 DV: Coworker persuasiveness
<b>Predictors</b>							
Coworker confidence	0.54*** (0.05)	0.68*** (0.10)	0.40*** (0.06)	0.64*** (0.11)	0.22*** (0.07)	0.01 (0.12)	0.38*** (0.08)
Competitiveness	0.00 (0.05)	0.26 (0.16)	0.05 (0.06)	0.50** (0.19)	0.23*** (0.07)	-0.18 (0.21)	0.05 (0.14)
Coworker confidence x Competitiveness		-0.05 (0.03)		-0.09* (0.04)		0.09* (0.04)	-0.02 (0.03)
Coworker competence							0.46*** (0.05)
Coworker dominance							0.09* (0.04)
$R^2$	.31	.31	.15	.17	.07	.08	.53
Wald $\chi^2$	110.88***	115.69***	44.00***	51.66***	18.27***	22.86***	287.85***

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . All measures are perceiver-ratings of a target coworker (expresser). All regression coefficients are unstandardized. Numbers in parentheses represent standard errors. DV is used to indicate dependent variable. We used the R-squared value created by Rabe-Hesketh and Skrondal (2008) for mixed-effects regression models.

To examine the associations between the mediators and persuasiveness, Model 7 showed that competence ( $B = 0.46$ ,  $SE = 0.05$ ,  $p < .001$ ) and dominance ( $B = 0.09$ ,  $SE = 0.04$ ,  $p = .018$ ) were both positively associated with persuasiveness. To test Hypothesis 3, which specifies a weaker positive indirect effect of confidence on persuasiveness via competence in situations with higher competitiveness, we used the regression coefficients and standard errors from the previous results and computed confidence intervals (CIs) based on Tofghi and MacKinnon (2011). Supporting Hypothesis 3, the results demonstrated a significant indirect interaction effect of confidence and competitiveness on persuasiveness via competence ( $B = -0.04$ ,  $SE = 0.02$ , 95% CI = [-0.08, -0.01]). Table 4 presents the pattern of the effects. Specifically, when competitiveness was higher than the midpoint (4), the indirect positive effects of confidence on persuasiveness via competence became non-significant.

Hypotheses 4a and 4b specify a stronger positive (4a) or negative (4b) indirect effect of confidence on persuasiveness via dominance in situations with higher competitiveness. Supporting neither Hypothesis 4a nor 4b, the results demonstrated a non-significant indirect interaction of confidence and competitiveness on persuasiveness via dominance ( $B = 0.00$ ,  $SE = 0.01$ , 95% CI = [-0.01, 0.02]). In summary, higher competitiveness weakened the association between confidence and competence but strengthened the association between confidence and dominance. However, the interaction of confidence and competitiveness indirectly influenced persuasiveness via competence but not dominance. We also did not include a task-relevant disagreement as the specific context in our instructions for the competitiveness scale and therefore used experiments in Studies 2 and 3 to create a context of task-relevant disagreement.

## Studies 2 and 3: Experiments with a Decision-making Task

### Participants and Design

Study 2 and 3 consisted of 599 and 501 adults, respectively (S2/S3<sup>7</sup>: 42/58% male, 57/41% female, 1/1% other: those who did not identify within the gender binary or preferred not to disclose gender information,  $M_{age} = 19.42/33.57$  years,  $SD_{age} = 1.21/10.46$  years), in our final samples. We initially recruited 666 university students who participated in Study 2 for course credit. In Study 3, we recruited an initial sample of 552 adults by giving monetary compensation of £1.88 to participants on Prolific Academic (the currency used by Prolific.co; Palan & Schitter, 2018).<sup>8</sup> We removed 67 participants in Study 2 and 51 participants in Study 3 before analysis based on pre-registered criteria (incomplete responses for focal variables, inappropriate responses to open-ended questions, suspicion of whether the task co-decider was real, or issues hearing the video clips of the co-decider). Both studies used a two-by-two factorial design with a neutral condition. Participants were randomly assigned to a low confidence/low competitiveness, low confidence/high competitiveness, high confidence/low competitiveness, high confidence/high competitiveness, or neutral condition. In each study, each condition included at least 94 participants.

<sup>7</sup> “S2” and “S3” are used throughout the analyses to indicate Study 2 and Study 3, respectively.

<sup>8</sup> In Study 3, two additional participants than the 550 indicated in the pre-registration were included due to technical issues.

**Table 3.** *The Effects of Coworker Confidence at Different Levels of Felt Competitiveness in Study 1*

Competitiveness Scale point	The association between coworker confidence and competence		The association between coworker confidence and dominance	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
1	0.55***	0.08	0.09	0.09
2	0.45***	0.06	0.18*	0.07
3	0.36***	0.06	0.26***	0.07
4	0.27**	0.08	0.35***	0.09
5	0.17	0.11	0.44***	0.12
6	0.08	0.14	0.52**	0.16
7	-0.02	0.17	0.61**	0.20

Note: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

**Table 4.** *The Indirect Effects of Coworker Confidence via Competence at Different Levels of Felt Competitiveness in Study 1*

Competitiveness Scale point	The indirect association between coworker confidence and persuasiveness via competence		95% Confidence Interval
	<i>B</i>	<i>SE</i>	
1	0.25	0.05	[0.17, 0.34]
2	0.21	0.04	[0.14, 0.28]
3	0.16	0.03	[0.10, 0.23]
4	0.12	0.04	[0.05, 0.20]
5	0.08	0.05	[-0.02, 0.18]
6	0.04	0.07	[-0.09, 0.16]
7	-0.01	0.08	[-0.17, 0.15]

## Procedure

In Studies 2 and 3, participants completed an online study and followed the same procedure. All study stimuli were presented to participants via Qualtrics. To promote engagement and motivation, participants were first asked to indicate whether they would commit to providing their best answers (Tsai et al., 2019; all participants in the final sample responded affirmatively). Next, participants read a detailed scenario (modified from Fischer et al., 2005) in which they were instructed to imagine themselves as a hiring officer for the corporate headquarters of a conglomeration of boutique fashion houses. Participants were presented with a corporate decision involving what the frequency of performance reviews and the length of a contract renewal period should be for a company executive of one of the conglomerate companies, Mr. Stanley. Participants read information about both advantages and disadvantages of a high versus low frequency of performance reviews and a long versus short duration for the contract renewal period.

Next, participants read that they would be paired with another participant to discuss and reach agreements on these two issues. They also entered their initials and read a message that participants should refer to each other using their initials for the remainder of the study. Subsequently, to manipulate participants' felt competitiveness, participants in the high (low) competitiveness condition were requested to describe how they would work competitively (non-competitively) with their assigned co-decider. We used the content of the competitiveness scale in Study 1 to develop the instructions. To reinforce the differentiation in felt competitiveness across the conditions, we presented the task as a negotiation in the high competitiveness condition and a discussion in the low competitiveness or neutral condition because negotiations make opposing interests or competitiveness more salient than discussions (Straus, 1999). Participants in the neutral condition did not receive instructions regarding competitiveness, but read: "To help you prepare for the task, please describe below how you will work with your counterpart on the scenario regarding Mr. Stanley."

Subsequently, participants indicated their initial preferences regarding the two task issues (review frequency and contract duration) on a scale of 0 (monthly review; five-year renewal) to 100 (annual review; one-year renewal) for each issue and provided reasons for each preference. They also read that their preferences and reasons would be shared with their co-decider. To increase the realism of the assigned co-decider, participants were compelled to wait to be paired with their co-decider. They were then informed they had been paired with "KA" and were given a chance to send a text message to KA. They also read that their co-decider would send them a message in randomly-assigned text/written or video/recorded format (all participants were actually shown a video, as described below). They were then asked to wait while KA responded.

Afterward, participants received a different video message from KA based on condition. All clips were pre-recorded using an actor (e.g., Carli et al., 1995; Kopelman et al., 2006) to ensure consistency across conditions except for the intended verbal and nonverbal differences in expressed confidence and competitiveness. The same female actor, clothing, and setting were used in all clips. The actor was trained in how to express low/high confidence nonverbally through multiple channels, including appropriate facial and body movements and tone of voice. We followed prior research demonstrating that confidence can be conveyed by seeming surer of oneself, including having a straight posture, direct eye gaze, lifted chin, using a comfortably loud rather than soft volume, and displaying an appearance of strength (Ko et al., 2015; Locke & Anderson, 2015).

To increase the realism of the co-decider's message, the video began by including an "accidental" partial revelation of KA's full name: "Hi, I'm...Ki...I mean, KA. I read your response to Mr. Stanley's situation." In the second part of the message, the verbal content differed by condition to appropriately convey confidence and competitiveness regarding whose solution should be chosen. In

the neutral condition, the message conveyed the initial opinion disagreement: “My thoughts are different from yours.” This disagreement message was also used in other conditions. However, the message was not designed to include cues related to confidence or competitiveness. In contrast, the (high)/(low) confidence and high competitiveness condition stated: “My thinking is different from yours. But I (feel pretty confident)/(don’t feel totally confident) we should use my idea as the solution.” Moreover, the messages in the (high)/(low) confidence and low competitiveness condition were: “My thinking is different from yours. But I (feel pretty confident)/(don’t feel totally confident) we can consider my idea as one of our possible solutions.”

To ensure that participants could view the video properly and to reinforce the manipulation, they were requested to type the content of KA’s message before moving on. They then indicated their perceptions of KA’s competence and dominance. Afterward, they received an opposing preference from KA on each issue. For instance, if a participant initially submitted scores of 80 for performance review (indicating stronger preference for annual rather than monthly frequency) and 20 for contract length (stronger preference for five- rather than one-year renewal), KA’s response indicated scores of 11 (preference for monthly) and 89 (preference for one-year renewal), respectively. To standardize the co-decider’s responses across participant variations in preference, we consistently presented scores of either 11 or 89 for each issue, depending on which would most oppose the participant’s initial preference on that issue. Participants also received corresponding reasons for KA’s preferences that were aligned with KA’s numerical selection for that issue (11 or 89). We pre-tested plausible reasons in a separate pilot study to ensure KA’s reasons were consistently persuasive regardless of the selection ( $p > .05$  for each comparison between reasons included in our final study design). Example reasons provided by KA included “higher performance review frequency will provide a more accurate evaluation of Mr. Stanley’s performance” versus “lower performance review frequency because it will decrease Mr. Stanley’s anxiety and stress due to performance evaluations.” Participants then indicated their revised preferences and reasons for the two issues and their evaluation of KA’s persuasiveness. Next, they completed manipulation check scales regarding KA’s confidence and the competitiveness between themselves and KA and were probed for any suspicion regarding KA and their motivation to complete the study. Finally, participants were debriefed (including a disclosure that the interaction was simulated) and received compensation.

## Measures

**Co-decider competence and dominance.** We adapted the same scales as in Study 1 for co-decider competence (1 = not at all; 7 = very much so,  $S2/S3: \alpha = 0.93/0.95$ ; e.g., “While working on the task together, KA seems competent at the task.”) and dominance (1 = strongly disagree; 7 = strongly agree,  $S2/S3: \alpha = 0.94/0.91$ ; e.g., “While working on the task together, KA seems dominant.”).

**Co-decider persuasiveness.** Persuasiveness was measured in two ways. First, we adapted the same scale as in Study 1 to assess co-decider persuasiveness (1 = strongly disagree; 7 = strongly agree,  $S2/S3: \alpha = 0.89/0.91$ ; e.g., “In deciding how to revise my response, KA’s opinions were persuasive.”). Second, similar to prior research on social influence (e.g., Adam et al., 2010; Driskell et al., 1993; Tsai & Li, 2020), we used participants’ preference changes on the two task issues (i.e., review frequency and contract length) as a behavioral measure of persuasiveness. This method of measuring persuasiveness provided a more fine-grained means to examine exactly how much individuals would be willing to move toward their disagreeing co-decider. For example, if a participant initially indicated preferences of 80 (lower frequency) and 70 (shorter renewal), they would receive KA’s response of 11 (higher frequency) and 11 (longer renewal). If the participant’s revised preference selections were 20 and 15, the participant’s total change score—that is, how much their preferences moved toward KA’s—

would be:  $(80-20) + (70-15) = 115$  (we also allowed for negative change scores, if the participant's revised preferences moved farther away from KA's preferences; see similar methodology in Driskell et al., 1993). In this way, movement indicated both the degree and direction that a persuasion attempt influenced the recipient. The correlation between the self-report and behavioral measures of persuasiveness was significantly positive (S2/S3:  $r = 0.48/0.42, p < .001$ ).

**Manipulation checks.** We adapted the same scales of confidence and competitiveness as Study 1. Participants rated four statements about the co-decider's confidence (1 = not at all; 7 = extremely, S2/S3:  $\alpha = 0.98/0.98$ ; e.g., KA seems... "confident about his/her dissenting opinions," "certain about his/her dissenting opinions") and five statements regarding competitiveness between themselves and the co-decider (1 = strongly disagree; 7 = strongly agree, S2/S3:  $\alpha = 0.88/0.90$ ; e.g., "We are structuring things in ways that favor our individual goals rather than the other person's goals.")<sup>9</sup>

## Results and Discussion

Table 5 presents descriptive statistics and correlations of major variables in Studies 2-3.

**Manipulation checks.** We used ANOVAs and tests of planned contrasts to examine the effectiveness of the manipulations. For confidence, the results demonstrated a significant difference among the low, high, and neutral conditions in the expected direction (S2/S3:  $F = 613.63/239.45, p < .001/< .001$ ). Specifically, participants in the low confidence condition (S2/S3:  $M = 2.46/3.00, SD = 1.35/1.59$ ) perceived their co-deciders as less confident than those in the high confidence (S2/S3:  $M = 5.90/5.72, SD = 0.93/1.03; t = -33.54/-20.55, p < .001/< .001$ ) and neutral conditions (S2/S3:  $M = 5.38/5.47, SD = 1.01/1.25; t = -22.84/-15.36, p < .001/< .001$ ), which indicates the confidence manipulation was effective. Additionally, we did not find a consistent significant difference between the high confidence and neutral conditions (S2/S3:  $t = -4.05/-1.53, p = <.001/= .127$ ), which suggested that, as a baseline, participants may perceive a co-decider as confident without cues to indicate otherwise. For perceived competitiveness, we found a significant difference among the low, high, and neutral conditions (S2/S3:  $F = 35.50/36.39, p < .001/< .001$ ). Specifically, participants in the low competitiveness condition (S2/S3:  $M = 2.89/2.80, SD = 1.35/1.48$ ) perceived the interaction as less competitive than those in the high competitiveness condition (S2/S3:  $M = 3.91/4.05, SD = 1.40/1.43; t = -8.27/-8.42, p < .001/<.001$ ). Participants in the neutral condition (S2/S3:  $M = 3.18/3.62, SD = 1.26/1.54$ ) perceived less competitiveness than those in the high competitiveness condition (S2/S3:  $t = -4.76/-2.37, p < .001/= .018$ ). We also found that participants in the low competitiveness condition perceived less competitiveness than in the neutral condition, but this difference was not consistently significant (S2/S3:  $t = -1.88/-4.58, p = .060/< .001$ ). These findings suggested that participants may perceive their interactions with a co-decider as non-competitive during situations with either no competition cues or with explicit non-competition cues. Given the significant differentiation of high versus low

<sup>9</sup> We also conducted comparable CFAs for all the scales with multiple items in Study 2, and the results supported that these measures are separate constructs. Please see the detailed results in the section titled "Results of Confirmatory Factor Analyses and Chi-squared Difference Tests in Study 2" in the supplemental materials.



confidence and competition and the fact that these were our main focal variables, we focused on the four conditions without the neutral condition in our subsequent analyses.<sup>10</sup>

**Hypothesis testing.** We next conducted ordinary least squares regressions comparing the four conditions of interest to test our model: low (coding = 0) and high (coding = 1) confidence and competitiveness (see Tables 6 and 7). We include all analyses for comprehensiveness. Models 1 and 2 showed that competitiveness decreased co-decider persuasiveness for both (1) self-report and (2) behavioral measures (S2/S3: persuasiveness 1:  $B = -0.50/-0.44$ ,  $SE = 0.11/0.14$ ,  $p < .001/= .002$ ; persuasiveness 2:  $B = -17.01/-12.36$ ,  $SE = 3.51/4.94$ ,  $p < .001/= .013$ ). Models 3 and 4 did not consistently show significant interaction effects between confidence and competitiveness on persuasiveness (S2/S3: persuasiveness 1:  $B = -0.48/-0.31$ ,  $SE = 0.23/0.28$ ,  $p = .037/= .268$ ; persuasiveness 2:  $B = 0.22/-17.01$ ,  $SE = 7.03/9.85$ ,  $p = .975/= .085$ ). A significant interaction effect was found only from the self-reported persuasiveness measure in Study 2, which showed a stronger negative association between confidence and persuasiveness in higher competitiveness (lower competitiveness:  $B = 0.05$ ,  $SE = 0.16$ ,  $p = .777$ ; higher competitiveness:  $B = -0.43$ ,  $SE = 0.16$ ,  $p = .007$ ). However, this significant effect may be unreliable because we did not find similar significant effects in the other four tests across the three studies.

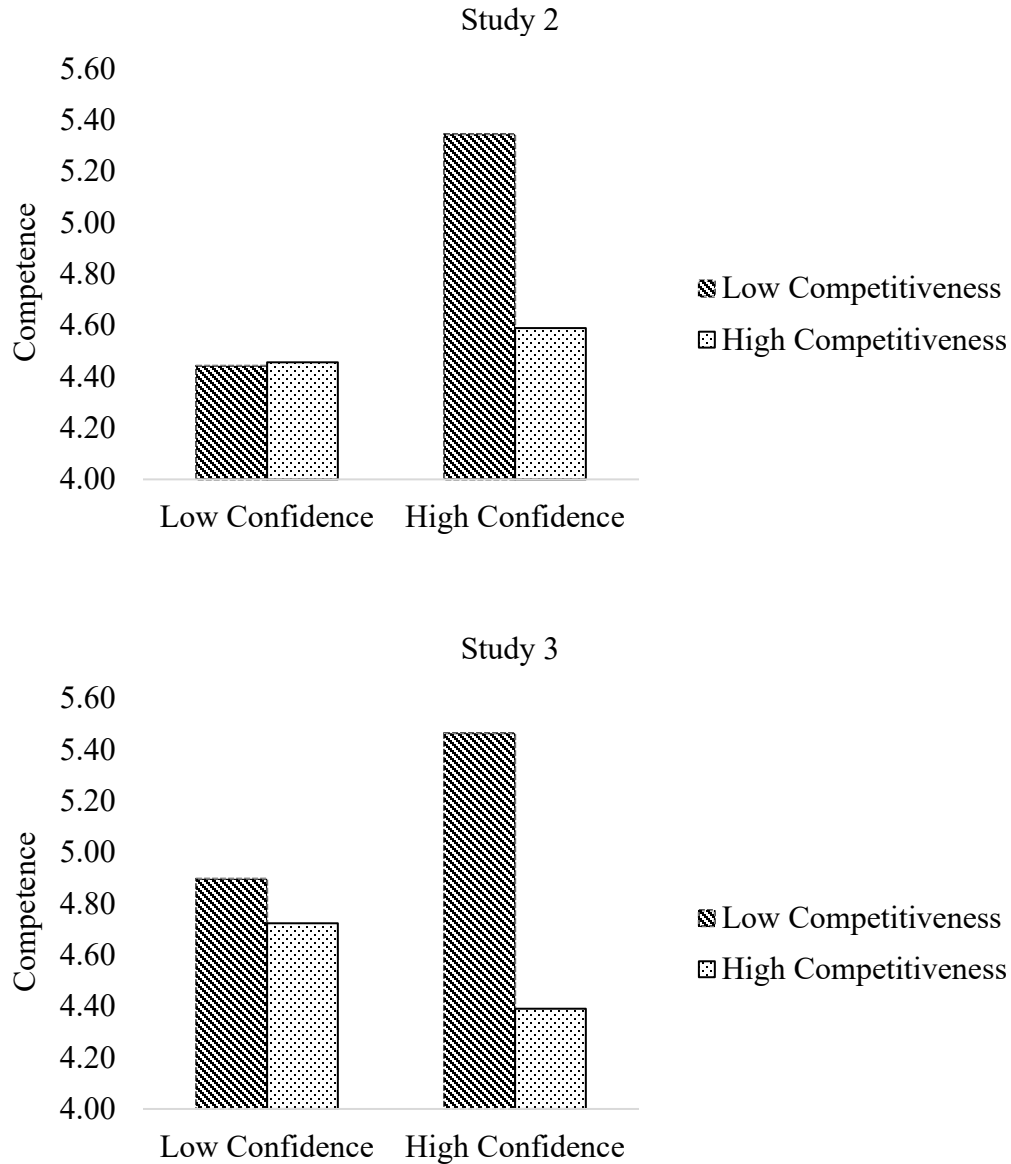
Moreover, Model 5 showed that competitiveness consistently and significantly decreased perceptions of competence (S2/S3:  $B = -0.38/-0.63$ ,  $SE = 0.12/0.14$ ,  $p = .002/< .001$ ), although the effect of confidence was not consistent (S2/S3:  $B = 0.51/0.14$ ,  $SE = 0.12/0.14$ ,  $p < .001/= .304$ ). Model 6 also showed a significant interaction effect between perceived confidence and competitiveness on perceived competence (S2/S3:  $B = -0.77/-0.90$ ,  $SE = 0.24/0.27$ ,  $p = .001/< .001$ ). Specifically, the results of simple slope analyses showed that when competitiveness was higher, the effect of confidence on competence became non-significant (S2/S3: lower competitiveness:  $B = 0.90/0.57$ ,  $SE = 0.17/0.19$ ,  $p < .001/= .003$ ; higher competitiveness:  $B = 0.13/-0.33$ ,  $SE = 0.17/0.20$ ,  $p = .425/= .091$ ), supporting Hypothesis 1. Figure 2 demonstrates the pattern of this interaction effect.

We next examined perceived dominance as a dependent variable. Model 7 showed that confidence was positively related to dominance (S2/S3:  $B = 2.78/2.10$ ,  $SE = 0.12/0.15$ ,  $p < .001/< .001$ ), although competitiveness was not significantly related (S2/S3:  $B = 0.22/0.21$ ,  $SE = 0.12/0.15$ ,  $p = .065/= .150$ ). Model 8 showed a significant interaction effect between confidence and competitiveness on dominance (S2/S3:  $B = 1.05/1.57$ ,  $SE = 0.24/0.29$ ,  $p < .001/< .001$ ). Specifically, simple slope analyses demonstrated that when competitiveness was higher, the positive association between co-decider confidence and co-decider dominance became stronger (S2/S3: higher competitiveness:  $B = 3.30/2.93$ ,  $SE = 0.17/0.21$ ,  $p < .001/< .001$ ; lower competitiveness:  $B = 2.25/1.36$ ,  $SE = 0.17/0.20$ ,  $p < .001/< .001$ ), supporting Hypothesis 2. Figure 3 demonstrates the pattern of this interaction effect. Consistent with the findings of Study 1, Models 9 and 10 showed that competence was positively associated with persuasiveness (S2/S3: persuasiveness 1:  $B = 0.34/0.38$ ,  $SE = 0.04/0.05$ ,  $p < .001/< .001$ ; persuasiveness 2:  $B = 6.19/5.11$ ,  $SE = 1.34/1.81$ ,  $p < .001/= .005$ ). However, dominance was not consistently significantly associated with persuasiveness (S2/S3: persuasiveness 1:  $B = -$

<sup>10</sup> Although the results of the neutral condition were less relevant to our hypotheses, for comprehensiveness, we examined additional differences in the focal variables. Please see the section titled “Differences Across Conditions in Study 2” in the supplemental materials.

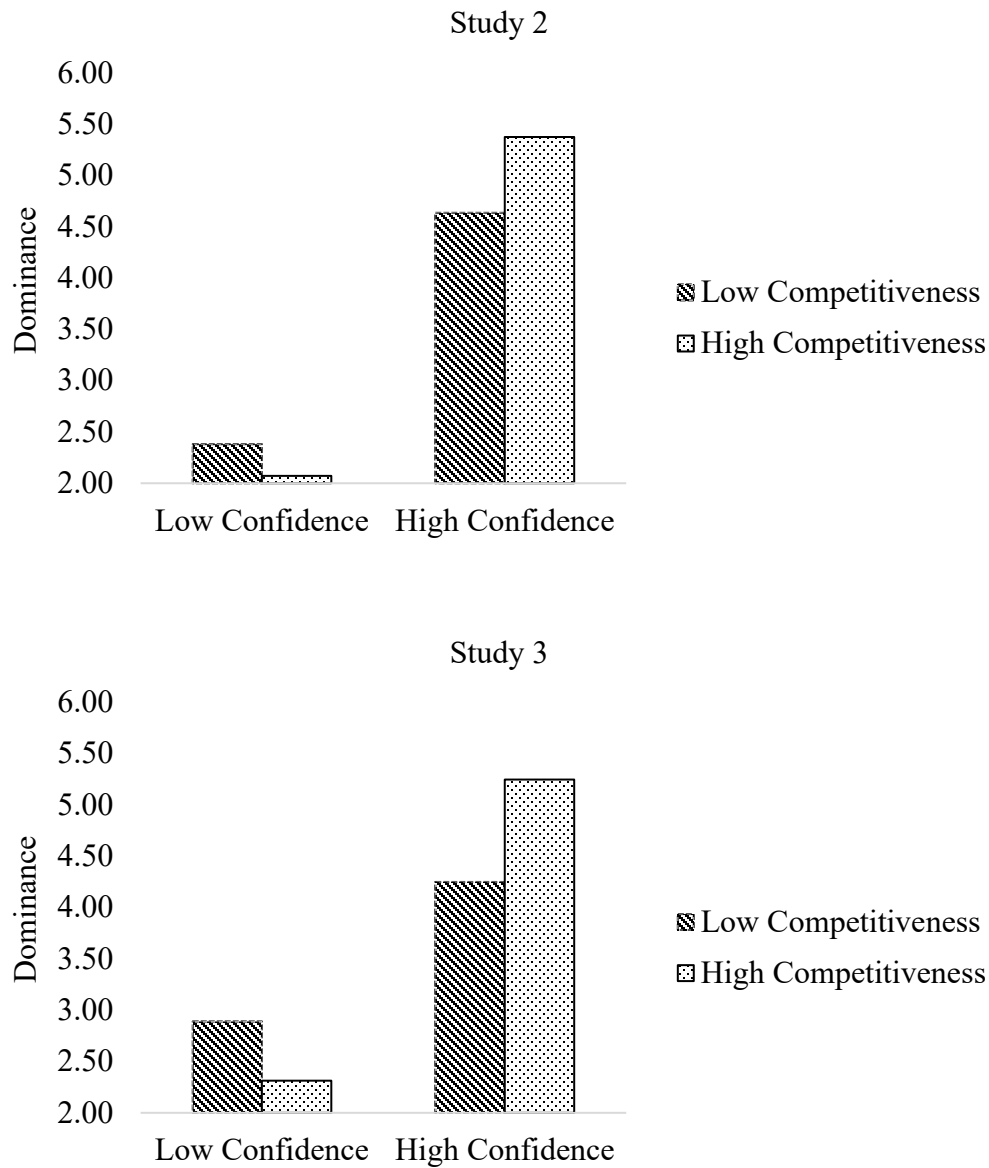
0.01/0.04,  $SE = 0.04/0.05$ ,  $p = .756/= .358$ ; persuasiveness 2:  $B = -0.72/-3.72$ ,  $SE = 1.35/1.71$ ,  $p = .593/= .030$ , so these results should be interpreted with caution.<sup>11</sup>

**Figure 2.** The Interaction Effect of Confidence and Competitiveness on Competence in Studies 2 and 3



<sup>11</sup> Additionally, analyses showed competence was more positively associated with persuasiveness than dominance in both studies. Please see “Differential Predictability of Competence and Dominance” in the supplemental materials.

**Figure 3.** The Interaction Effect of Confidence and Competitiveness on Dominance in Studies 2 and 3



To test Hypothesis 3, we computed CIs using the previous regression results and bootstrapping with 10,000 repetitions (Hayes, 2013). We found significant indirect interaction effects of confidence and competitiveness for both persuasiveness measures via competence (S2/S3: persuasiveness 1:  $B = -0.26/-0.34$ ,  $SE = 0.09/0.11$ , 95% CI = [-0.45, -0.10]/[-0.59, -0.14]; persuasiveness 2:  $B = -4.79/-4.60$ ,  $SE = 1.91/2.24$ , 95% CI = [-9.02, -1.57]/[-10.26, -1.16]). Specifically, when competitiveness was higher, the indirect positive association between confidence and persuasiveness via competence became non-significant (S2/S3: persuasiveness 1 lower competitiveness:  $B = 0.31/0.22$ ,  $SE = 0.07/0.07$ , 95% CI = [0.18, 0.45]/[0.09, 0.38]; persuasiveness 2 lower competitiveness:  $B = 5.58/2.90$ ,  $SE = 1.72/1.43$ , 95% CI = [2.55, 9.29]/[0.71, 6.43]; persuasiveness 1 higher competitiveness:  $B = 0.04/-0.13$ ,  $SE =$

0.06/0.08, 95% CI = [-0.07, 0.17]/ [-0.30, 0.03]; persuasiveness 2<sub>higher competitiveness</sub>:  $B = 0.80/-1.70$ ,  $SE = 1.16/1.31$ , 95% CI = [-1.42, 3.24]/[-5.21, 0.12]), supporting Hypothesis 3.

However, in testing dominance as a mediator, we did not find a consistent significant indirect interaction effect (S2/S3: persuasiveness 1:  $B = -0.01/0.07$ ,  $SE = 0.04/0.08$ , 95% CI = [-0.10, 0.07]/[-0.08, 0.23]), persuasiveness 2:  $B = -0.75/-5.86$ ,  $SE = 1.73/3.31$ , 95% CI = [-4.22, 2.72]/[-13.44, -0.30]), which did not consistently support Hypothesis 4a or 4b. The only significant interaction indirect effect appeared in the behavioral persuasiveness measure in Study 3. Specifically, when competitiveness was higher, the indirect association between confidence and the behavioral persuasiveness measure via dominance became more negative (S3: persuasiveness 2<sub>lower competitiveness</sub>:  $B = -5.06$ ,  $SE = 2.61$ , 95% CI = [-10.70, -0.34]; persuasiveness 2<sub>higher competitiveness</sub>:  $B = -10.92$ ,  $SE = 5.60$ , 95% CI = [-22.43, -0.39]). Thus, we did not find consistent support for Hypothesis 4a or 4b. Together, the findings of Studies 2 and 3 replicated those of Study 1 and provided evidence for the interactive causal effects of confidence and competitiveness by showing that competitiveness eliminated the positive effect of confidence on persuasiveness via competence. However, the findings of Studies 1-3 also demonstrated inconsistent associations between dominance and persuasiveness, suggesting that dominance may have an unreliable, and potentially harmful, influence on persuasiveness.

## General Discussion

Across three studies, we consistently find that higher competitiveness eliminates the positive impact of expressed confidence on perceived competence but enhances the positive effect of expressed confidence on perceived dominance. Subsequently, the relationship between competence and persuasiveness is more positive than the relationship between dominance and persuasiveness, demonstrating that competence rather than dominance is a more reliable, positive mechanism whereby persuasiveness is increased in disagreement settings. The findings are consistent across a diverse range of samples, including a multi-wave field survey of coworker dyads and two experiments. Importantly, we also find the pattern of results remains consistent across samples from different cultures, supporting the overall generalizability of the findings. Together, these results suggest that confidence expressions in low (versus high) levels of felt competitiveness maximize perceived competence and minimize perceived dominance during disagreements. In such situations, expressers enhance their persuasiveness by conveying competence rather than dominance.

### Theoretical Implications

Our research contributes to the literature on social cognition. Although previous research has demonstrated that competitiveness is negatively associated with warmth perceptions such as tolerance and good nature, but not significantly associated with competence perceptions (Fiske et al., 2002), our research suggests that competitiveness is relevant for competence perceptions. That is, high competitiveness eliminates the positive association between expressed confidence and perceived competence, which suggests a tendency to discount a confident competitor's knowledge under higher competitiveness. Furthermore, existing research shows that competence and dominance are two dimensions of agency (i.e., qualities related to goal-attainment, Abele et al., 2016), which suggests similarity between them. However, our investigation demonstrates that felt competitiveness helps differentiate between perceptions of competence and dominance. Specifically, high competitiveness weakens the positive association between expressed confidence and perceived competence but strengthens the positive relationship between expressed confidence and perceived

dominance. These findings suggest that under higher competitiveness, expressed confidence may be viewed more strongly as a self-interested tool to dominate others rather than as a cue of expertise.

Moreover, our interpersonal approach diverges from extant research on confidence and conflict management that has largely emphasized the importance of self-confidence (e.g., training programs to improve negotiators' self-confidence; Taylor et al., 2008). This stream of research suggests that self-perceived confidence promotes effective conflict resolution, for example, by motivating people to seek solutions to satisfy all parties in a conflict (Corcoran & Mallinckrodt, 2000). In contrast, our findings show that self-perceptions of confidence are less predictive than are perceivers' evaluations of a target's confidence. Importantly, our findings suggest that a combination of higher expressed confidence and lower competitiveness translates into a higher perception of a counterpart's competence, which subsequently predicts the counterpart's higher persuasiveness during disagreements.

Our examination also helps clarify the association between expressed confidence and perceived dominance. Previous research has found inconsistent links between confidence expressions and perceived dominance, including a significant positive relationship (Scherer et al., 1973) and a non-significant association (Van Zant & Berger, 2020), in non-disagreement contexts. Our research adds to this growing body of findings, showing a significant positive relationship between confidence expressions and perceived dominance during a task-relevant disagreement. This relationship is also strengthened when competitiveness is higher. Taken together, our results and prior work suggest that task-relevant disagreement and competitiveness may influence the link between expressed confidence and perceived dominance.

Our studies also demonstrate that perceptions of a counterpart's competence are more positively associated with the counterpart's persuasiveness than are perceptions of a counterpart's dominance. Specifically, we did not find a consistent association between perceived dominance and persuasiveness (i.e., a significantly positive association in Study 1 and a non-significant and/or significantly negative association in Studies 2 and 3), which suggests these results should be interpreted with caution. However, given the consistent findings for competence, for persuaders, these studies underscore the value of expressing task-relevant rather than dominance cues (Driskell et al., 1993). Supporting this argument, prior work has posited that dominant people may have insufficient task-relevant skills and thus cannot effectively exert significant influence or lead others to achieve task goals (Bai, 2017). Our investigation confirms that perceived competence creates greater social influence than does perceived dominance.

### **Practical Implications and Future Research Directions**

Our research offers practical suggestions for how people can express confidence to create social perceptions and enhance persuasiveness during disagreements, depending on competitiveness. Specifically, our findings suggest that when perceivers' felt competitiveness is lower, expressed confidence becomes more effective for signaling competence, thereby increasing persuasiveness. Moreover, lower competitiveness reduces the association between expressed confidence and perceived dominance. Perceived dominance also does not consistently predict persuasiveness. Thus, individuals can express higher levels of confidence to signal their competence and thus enhance their persuasiveness when others' felt competitiveness is lower. Managers can help establish non-competitive climates for joint tasks to create more conducive spaces for employees to express their confidence. One way for managers to mitigate competitiveness is by emphasizing that each employee is working toward the same goals, and implementing incentives that reward joint work rather than individual employees (Beersma et al., 2003). Doing so may facilitate effective persuasion

processes during disagreements by bolstering associations between expressed confidence and perceptions of competence rather than perceptions of dominance.

The limitations of our studies offer several promising opportunities for future research. First, future research can examine whether the frequency of interactions will influence the joint effect of expressed confidence and felt competitiveness on persuasiveness because we only found this significant joint effect in a limited interaction scenario (i.e., Study 2) rather than in a working relationship with repeated interactions (i.e., Study 1). Second, we did not directly compare in the same study how impressions in the moment versus well-established impressions may influence persuasiveness via perceived dominance. More specifically, future work should explore whether people are less resistant to another's dominance when they are used to the other's behavior. Finally, our research primarily compared expressions of high and low confidence, but people may use other expressions to convey belief in their ideas. For example, a lack of confidence could also be perceived as doubt (Samuels et al., 2017) or ambivalence (e.g., feeling both positive and negative about one's idea; Rothman et al., 2017), which are likely to have divergent effects on persuasiveness. Future research would benefit from exploring the effects of different confidence-related expressions.

## Conclusion

Prior research on the effectiveness of confidence in disagreements has focused on the effects of self-confidence rather than perceptions of a counterpart's confidence, and on situations in which individuals have common interests. We extend this research by exploring how felt competitiveness and expressed confidence interact to influence perceptions of the counterpart's competence and dominance during disagreement, thus affecting persuasiveness. Overall, our results suggest that individuals can optimize their persuasiveness by expressing high confidence only when others' felt competitiveness is low. Furthermore, when people express less confidence in their ideas under higher competitiveness, they are less likely to signal dominance, thereby preventing the potential negative effects of dominance on persuasiveness. Together, this research provides a useful guide for expressing confidence that can enhance competence perceptions and thus optimize persuasiveness.

## References

- Abele, A. E., Hauke, N., Peters, K., Louvet, E., Szymkow, A., & Duan, Y. (2016). Facets of the fundamental content dimensions: Agency with competence and assertiveness-communion with warmth and morality. *Frontiers in Psychology, 7*, 1810. <https://doi.org/10.3389/fpsyg.2016.01810>
- Adam, H., Shirako, A., & Maddux, W. W. (2010). Cultural variance in the interpersonal effects of anger in negotiations. *Psychological Science, 21*(6), 882-889. <https://doi.org/10.1177/0956797610370755>
- Anderson, C., & Berdahl, J. L. (2002). The experience of power: Examining the effects of power on approach and inhibition tendencies. *Journal of Personality and Social Psychology, 83*(6), 1362-1377. <https://doi.org/10.1037//0022-3514.83.6.1362>
- Anderson, C., Brion, S., Moore, D. A., & Kennedy, J. A. (2012). A status-enhancement account of overconfidence. *Journal of Personality and Social Psychology, 103*(4), 718-735. <https://doi.org/10.1037/a0029395>
- Anderson, C., & Kilduff, G. J. (2009). Why do dominant personalities attain influence in face-to-face groups? The competence-signaling effects of trait dominance. *Journal of Personality and Social Psychology, 96*(2), 491-503. <https://doi.org/10.1037/a0014201>
- Bai, F. (2017). Beyond dominance and competence: A moral virtue theory of status attainment. *Personality and Social Psychology Review, 21*(3), 203-227. <https://doi.org/10.1177/1088868316649297>

- Beersma, B., Hollenbeck, J. R., Humphrey, S. E., Moon, H., Conlon, D. E., & Ilgen, D. R. (2003). Cooperation, competition and team performance: Towards a contingency approach [Article]. *Academy of Management Journal*, 46(5), 572-590. <https://doi.org/10.2307/30040650>
- Berger, J., Cohen, B. P., & Zelditch, M. (1972). Status characteristics and social interaction. *American Sociological Review*, 37(3), 241-255. <https://doi.org/10.2307/2093465>
- Berger, J., Rosenholtz, S. J., & Zelditch, M. (1980). Status organizing processes. *Annual Review of Sociology*, 6(1), 479-508. <https://doi.org/10.1146/annurev.so.06.080180.002403>
- Brett, J. M., Olekalns, M., Friedman, R., Goates, N., Anderson, C., & Lisco, C. C. (2007). Sticks and stones: Language, face, and online dispute resolution. *Academy of Management Journal*, 50(1), 85-99. <http://www.jstor.org/stable/20159842>
- Brislin, R. W. (1986). The wording and translation of research instruments. In W. J. Lonner & J. W. Berry (Eds.), *Field methods in cross-cultural research* (pp. 137-164). Sage.
- Brown, G., & Baer, M. (2011). Location in negotiation: Is there a home field advantage? *Organizational Behavior and Human Decision Processes*, 114(2), 190-200. <https://doi.org/10.1016/j.obhdp.2010.10.004>
- Carli, L. L., LaFleur, S. J., & Loeber, C. C. (1995). Nonverbal behavior, gender, and influence. *Journal of Personality and Social Psychology*, 68(6), 1030-1041. <https://doi.org/10.1037/0022-3514.68.6.1030>
- Chang, J.-H., Zhu, Y.-Q., Wang, S.-H., & Li, Y.-J. (2018). Would you change your mind? An empirical study of social impact theory on Facebook. *Telematics and Informatics*, 35(1), 282-292. <https://doi.org/10.1016/j.tele.2017.11.009>
- Cheng, J. T., Tracy, J. L., Foulsham, T., Kingstone, A., & Henrich, J. (2013). Two ways to the top: Evidence that dominance and prestige are distinct yet viable avenues to social rank and influence. *Journal of Personality and Social Psychology*, 104(1), 103-125. <https://doi.org/10.1037/a0030398>
- Corcoran, K. O. C., & Mallinckrodt, B. (2000). Adult attachment, self-efficacy, perspective taking, and conflict resolution. *Journal of Counseling & Development*, 78(4), 473-483. <https://doi.org/10.1002/j.1556-6676.2000.tb01931.x>
- Dooley, R. S., & Fryxell, G. E. (1999). Attaining decision quality and commitment from dissent: The moderating effects of loyalty and competence in strategic decision-making teams. *Academy of Management Journal*, 42(4), 389-402. <https://doi.org/10.1037/0022-3514.68.6.1030>
- Driskell, J. E., Olmstead, B., & Salas, E. (1993). Task cues, dominance cues, and influence in task groups. *Journal of Applied Psychology*, 78(1), 51. <https://doi.org/10.1037/0021-9010.78.1.51>
- Eisenkraft, N., Elfenbein, H. A., & Kopelman, S. (2017). We know who likes us, but not who competes against us: Dyadic meta-accuracy among work colleagues. *Psychological Science*, 28(2), 233-241. <https://doi.org/10.1177/0956797616679440>
- Farmer, S. M., Tierney, P., & Kung-McIntyre, K. (2003). Employee creativity in Taiwan: An application of role identity theory. *Academy of Management Journal*, 46(5), 618-630. <https://doi.org/10.2307/30040653>
- Fischer, P., Jonas, E., Frey, D., & Schulz-Hardt, S. (2005). Selective exposure to information: The impact of information limits. *European Journal of Social Psychology*, 35(4), 469-492. <https://doi.org/10.1002/ejsp.264>
- Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878-902. <http://psycnet.apa.org/journals/psp/82/6/878/>
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.
- Ho, G. C., Shih, M., & Walters, D. J. (2012). Labels and leaders: The influence of framing on leadership emergence. *The Leadership Quarterly*, 23(5), 943-952. <https://doi.org/10.1016/j.leaqua.2012.06.003>
- Johnson, R. E., Rosen, C. C., & Djurdjevic, E. (2011). Assessing the impact of common method variance on higher order multidimensional constructs. *Journal of Applied Psychology*, 96(4), 744-761. <https://doi.org/10.1037/a0021504>

- Kennedy, J. A., Anderson, C., & Moore, D. A. (2013). When overconfidence is revealed to others: Testing the status-enhancement theory of overconfidence. *Organizational Behavior and Human Decision Processes*, 122(2), 266-279. <https://doi.org/10.1016/j.obhdp.2013.08.005>
- Kimble, C. E., & Seidel, S. D. (1991). Vocal signs of confidence. *Journal of Nonverbal Behavior*, 15(2), 99-105. <https://doi.org/10.1007/BF00998265>
- Kleitman, S., & Stankov, L. (2007). Self-confidence and metacognitive processes. *Learning and Individual Differences*, 17(2), 161-173. <https://doi.org/10.1016/j.lindif.2007.03.004>
- Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). Guilford Press.
- Knoll, L. J., Magis-Weinberg, L., Speekenbrink, M., & Blakemore, S.-J. (2015). Social influence on risk perception during adolescence. *Psychological Science*, 26(5), 583-592. <https://doi.org/10.1177/0956797615569578>
- Ko, S. J., Sadler, M. S., & Galinsky, A. D. (2015). The sound of power: Conveying and detecting hierarchical rank through voice. *Psychological Science*, 26(1), 3-14. <https://doi.org/10.1177/0956797614553009>
- Kopelman, S., Rosette, A. S., & Thompson, L. (2006). The three faces of Eve: Strategic displays of positive, negative, and neutral emotions in negotiations. *Organizational Behavior and Human Decision Processes*, 99(1), 81-101. <https://doi.org/10.1016/j.obhdp.2005.08.003>
- Langfred, C. W. (2007). The downside of self-management: A longitudinal study of the effects of conflict on trust, autonomy, and task interdependence in self-managing teams. *Academy of Management Journal*, 50(4), 885-900.
- Li, N. P., Yong, J. C., Tsai, M.-H., Lai, M. H. C., Lim, A. J. Y., & Ackerman, J. M. (2020). Confidence is sexy and it can be trained: Examining male social confidence in initial, opposite-sex interactions. *Journal of Personality*, 88(6), 1235-1251. <https://doi.org/10.1111/jopy.12568>
- Locke, C. C., & Anderson, C. (2015). The downside of looking like a leader: Power, nonverbal confidence, and participative decision-making. *Journal of Experimental Social Psychology*, 58, 42-47. <https://doi.org/10.1016/j.jesp.2014.12.004>
- Martin, A. E., & Phillips, K. W. (2017). What "blindness" to gender differences helps women see and do: Implications for confidence, agency, and action in male-dominated environments. *Organizational Behavior and Human Decision Processes*, 142, 28-44. <https://doi.org/10.1016/j.obhdp.2017.07.004>
- Martin Allwood, C., Helene Innes-Ker, Å., Homgren, J., & Fredin, G. (2008). Children's and adults' realism in their event-recall confidence in responses to free recall and focused questions. *Psychology, Crime & Law*, 14(6), 529-547. <https://doi.org/10.1080/10683160801961231>
- Menon, T., & Blount, S. (2003). The messenger bias: A relational model of knowledge valuation. *Research in Organizational Behavior*, 25, 137-186. [https://doi.org/10.1016/S0191-3085\(03\)25004-8](https://doi.org/10.1016/S0191-3085(03)25004-8)
- Menon, T., & Pfeffer, J. (2003). Valuing internal vs. external knowledge: Explaining the preference for outsiders. *Management Science*, 49(4), 497-513. <https://doi.org/10.1287/mnsc.49.4.497.14422>
- Menon, T., Thompson, L., & Choi, H.-S. (2006). Tainted knowledge vs. tempting knowledge: People avoid knowledge from internal rivals and seek knowledge from external rivals. *Management Science*, 52(8), 1129-1144. <https://doi.org/10.1287/mnsc.1060.0525>
- Mohd. Shamsudin, F., Hamouche, S., Abdulmajid Cheikh Ali, D., Bani-Melhem, S., & Jamal Bani-Melhem, A. (2023). Why do employees withhold knowledge? The role of competitive climate, envy and narcissism. *Journal of Knowledge Management*, 27(7), 1925-1947. <https://doi.org/10.1108/JKM-02-2022-0133>
- Owens, T. J. (1993). Accentuate the positive and the negative: Rethinking the use of self-esteem, self-deprecation, and self-confidence. *Social Psychology Quarterly*, 56(4), 288-299. <https://doi.org/10.2307/2786665>
- Palan, S., & Schitter, C. (2018). Prolific.ac—A subject pool for online experiments. *Journal of Behavioral and Experimental Finance*, 17, 22-27. <https://doi.org/10.1016/j.jbef.2017.12.004>
- Piszczek, M. M., & Pimputkar, A. S. (2020). Flexible schedules across working lives: Age-specific effects on well-being and work. *Journal of Applied Psychology*. <https://doi.org/10.1037/apl0000844>



- Rabe-Hesketh, S., & Skrondal, A. (2008). *Multilevel and longitudinal modeling using Stata* (2nd ed. ed.). Stata Press Publication.
- Rothman, N. B., Pratt, M. G., Rees, L., & Vogus, T. J. (2017). Understanding the dual nature of ambivalence: Why and when ambivalence leads to good and bad outcomes. *Academy of Management Annals*, *11*(1), 33-72. <https://doi.org/10.5465/annals.2014.0066>
- Samuels, J., Bienvenu, O. J., Krasnow, J., Wang, Y., Grados, M. A., Cullen, B., Goes, F. S., Maher, B., Greenberg, B. D., McLaughlin, N. C., Rasmussen, S. A., Fyer, A. J., Knowles, J. A., Nestadt, P., McCracken, J. T., Piacentini, J., Geller, D., Pauls, D. L., Stewart, S. E., Murphy, D. L., Shugart, Y.-Y., Kamath, V., Bakker, A., Riddle, M. A., & Nestadt, G. (2017). An investigation of doubt in obsessive-compulsive disorder. *Comprehensive Psychiatry*, *75*, 117-124. <https://doi.org/10.1016/j.comppsy.2017.03.004>
- Sander, P., & Sanders, L. (2009). Measuring academic behavioural confidence: the ABC scale revisited. *Studies in Higher Education*, *34*(1), 19-35. <https://doi.org/10.1080/03075070802457058>
- Scherer, K. R., London, H., & Wolf, J. J. (1973). The voice of confidence: Paralinguistic cues and audience evaluation. *Journal of Research in Personality*, *7*(1), 31-44. [https://doi.org/10.1016/0092-6566\(73\)90030-5](https://doi.org/10.1016/0092-6566(73)90030-5)
- See, K. E., Morrison, E. W., Rothman, N. B., & Soll, J. B. (2011). The detrimental effects of power on confidence, advice taking, and accuracy. *Organizational Behavior and Human Decision Processes*, *116*(2), 272-285. <https://doi.org/10.1016/j.obhdp.2011.07.006>
- Smith, J. A., & Foti, R. J. (1998). A pattern approach to the study of leader emergence. *The Leadership Quarterly*, *9*(2), 147-160. [https://doi.org/10.1016/S1048-9843\(98\)90002-9](https://doi.org/10.1016/S1048-9843(98)90002-9)
- Snizek, J. A., & Van Swol, L. M. (2001). Trust, confidence, and expertise in a judge-advisor system. *Organizational Behavior and Human Decision Processes*, *84*(2), 288-307. <https://doi.org/10.1006/obhd.2000.2926>
- Straus, S. G. (1999). Testing a typology of tasks - An empirical validation of McGrath's (1984) group task circumplex. *Small Group Research*, *30*(2), 166-187. <https://doi.org/10.1177/104649649903000202>
- Strayer, F. F., & Strayer, J. (1976). An ethological analysis of social agonism and dominance relations among preschool children. *Child Development*, *47*(4), 980-989. <https://doi.org/10.2307/1128434>
- Taylor, K. A., Mesmer-Magnus, J., & Burns, T. M. (2008). Teaching the art of negotiation: Improving students' negotiating confidence and perceptions of effectiveness. *Journal of Education for Business*, *83*(3), 135-140. <https://doi.org/10.3200/JOEB.83.3.135-140>
- Tjosvold, D., Law, K. S., & Sun, H. F. (2003). Collectivistic and individualistic values: Their effects on group dynamics and productivity in China. *Group Decision and Negotiation*, *12*(3), 243-263. <https://doi.org/10.1023/A:1023383200180>
- Tjosvold, D., Tang, M. M. L., & West, M. (2004). Reflexivity for team innovation in China: The contribution of goal interdependence. *Group & Organization Management*, *29*(5), 540. <https://doi.org/10.1177/1059601103254911>
- Tjosvold, D., Zhang, X., Li, W.-D., Wong, A. S.-h., & Yu, K. (2022). Open-minded discussion in organizations: A meta-analytic evaluation of cooperation and competition theory. *Journal of Business and Psychology*, *37*, 897-921. <https://doi.org/10.1007/s10869-021-09777-w>
- Tofighi, D., & MacKinnon, D. P. (2011). RMediation: An R package for mediation analysis confidence intervals. *Behavior Research Methods*, *43*(3), 692-700. <https://doi.org/10.3758/s13428-011-0076-x>
- Tsai, M.-H., & Li, N. P. (2020). Depletion manipulations decrease openness to dissent via increased anger. *British Journal of Psychology*, *111*(2), 246-274. <https://doi.org/10.1111/bjop.12387>
- Tsai, M.-H., Melia, N. V., & Hinsz, V. B. (2020). The effects of perceived decision-making styles on evaluations of openness and competence that elicit collaboration. *Personality and Social Psychology Bulletin*, *46*(1), 124-139. <https://doi.org/10.1177/0146167219843934>
- Tsai, M.-H., Wee, S., & Koh, B. (2019). Restructured frame-of-reference training improves rating accuracy.

*Journal of Organizational Behavior*, 40(6), 740-757. <https://doi.org/10.1002/job.2368>

Van Zant, A. B., & Berger, J. (2020). How the voice persuades. *Journal of Personality and Social Psychology*, 118(4), 661-682. <https://doi.org/10.1037/pspi0000193>

Williams, R. (2012). Using the margins command to estimate and interpret adjusted predictions and marginal effects. *The Stata Journal*, 12(2), 308-331. <https://doi.org/10.1177/1536867X1201200209>

### Authors' Bios

**Laura Rees** is an Associate Professor of Organizational Behavior at the College of Business at Oregon State University. Her research focuses on emotions and related cognitive and interpersonal influences that often arise spontaneously and without much conscious thought, but profoundly shape decision-making, negotiations, performance, and well-being at work. She has served in multiple capacities on the leadership boards of the Conflict Management Division of the Academy of Management and the International Association for Conflict Management.

**Ming-Hong Tsai** is an Associate Professor of Psychology at the School of Social Sciences at Singapore Management University. His research examines judgment and decision-making, conflict management, emotions, and well-being.

**Shirli Kopelman** is a Professor of Management and Organizations at the University of Michigan's Ross School of Business. Kopelman was President of the International Association for Conflict Management in 2017 and also served as Faculty Director of Practice (2015) and of Research (2017) at the Center for Positive Organizations at the University of Michigan. Kopelman is the author of *Negotiating Genuinely: Being Yourself in Business*, published in 2014 by Stanford University Press. Kopelman's research focuses on mindfully navigating emotions in negotiation and fostering cooperation in social dilemmas and multicultural group settings.

**Hsiu-Hua Hu** is a Professor in the Department of International Business at Ming Chuan University. Her past roles have included serving as Vice President at National Chi Nan University in Taiwan, Executive Director of the Industry-Academia Collaboration and University Extension Division at Ming Chuan University, Chairman of the Board at the Asia Pacific Association for Business Administration, and a member of the Board of Directors & Compensation Committee at Hua Lien Media Intl. Co. Ltd. Her research focuses on human resource management and business ethics.

**Table 5.** Means, Standard Deviations, and Correlations of Focal Variables in Studies 2 and 3

Study 2 Variables	Mean	SD	1.	2.	3.	4.	5.
1. Co-decider confidence	0.01	0.90					
2. Competitiveness	0.01	0.90	0.01				
3. Co-decider competence	4.69	1.34	0.17***	-0.12**			
4. Co-decider dominance	3.79	1.85	0.68***	0.06	0.16***		
5. Co-decider persuasiveness 1	4.65	1.24	-0.07	-0.18***	0.36***	-0.05	
6. Co-decider persuasiveness 2	47.89	38.86	-0.01	-0.20***	0.20***	-0.02	0.48***
Study 3 Variables	Mean	SD	1.	2.	3.	4.	5.
1. Co-decider confidence	0.01	0.89					
2. Competitiveness	-0.04	0.89	-0.01				
3. Co-decider competence	4.88	1.42	0.05	-0.20***			
4. Co-decider dominance	3.79	1.76	0.53***	0.05	0.00		
5. Co-decider persuasiveness 1	4.69	1.44	0.02	-0.13**	0.40***	0.01	
6. Co-decider persuasiveness 2	48.96	49.42	0.07	-0.11*	0.14**	-0.05	0.42***

Note: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . Co-decider confidence and competitiveness are manipulated variables (by condition) and are each coded as -1 = low condition, 0 = neutral condition, and 1 = high condition. Co-decider persuasiveness 1 and 2 indicate different measures of persuasiveness; persuasiveness 1 (self-report) refers to participants' assessment of the co-decider's persuasiveness based on the persuasiveness scale, whereas persuasiveness 2 (behavioral) reflects participants' behavioral preference changes in the decision task.

**Table 6. Regression Analyses in Study 2**

Variables	Model 1 DV: Co-decider persuasiveness 1	Model 2 DV: Co-decider persuasiveness 2	Model 3 DV: Co-decider persuasiveness 1	Model 4 DV: Co-decider persuasiveness 2	Model 5 DV: Co-decider competence
<b>Predictors</b>					
Co-decider confidence	-0.20 (0.11)	-0.49 (3.51)	0.05 (0.16)	-0.60 (4.99)	0.51*** (0.12)
Competitiveness	-0.50*** (0.11)	-17.01*** (3.51)	-0.26 (0.16)	-17.12*** (5.01)	-0.37** (0.12)
Co-decider confidence × Competitiveness			-0.48* (0.23)	0.22 (7.03)	
$R^2$	.04	.05	.05	.05	.06
$F$	11.25***	11.75***	9.02***	7.81***	14.09***
Variables	Model 6 DV: Co-decider competence	Model 7 DV: Co-decider dominance	Model 8 DV: Co-decider dominance	Model 9 DV: Co-decider persuasiveness 1	Model 10 DV: Co-decider persuasiveness 2
<b>Predictors</b>					
Co-decider confidence	0.90*** (0.17)	2.78*** (0.12)	2.25*** (0.17)	-0.23 (0.18)	-4.57 (5.79)
Competitiveness	0.01 (0.17)	0.22 (0.12)	-0.31 (0.17)	-0.27 (0.15)	-17.45*** (4.93)
Co-decider confidence × Competitiveness	-0.77** (0.24)		1.05*** (0.24)	-0.20 (0.22)	5.75 (7.14)
Co-decider competence				0.34*** (0.04)	6.19*** (1.34)
Co-decider dominance				-0.01 (0.04)	-0.72 (1.34)
$R^2$	.08	.53	.55	.17	.09
$F$	13.13***	269.11***	192.93***	19.40***	9.11***

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . All regression coefficients are unstandardized. Numbers in parentheses represent standard errors. DV is used to indicate the dependent variable. Co-decider confidence and competitiveness are each coded as 0 = low condition and 1 = high condition. Co-decider persuasiveness 1 and 2 indicate different measures of persuasiveness; persuasiveness 1 (self-report) refers to participants' assessment of the co-decider's persuasiveness based on the self-report persuasiveness scale whereas persuasiveness 2 reflects participants' behavioral preference changes in the decision task.

**Table 7. Regression Analyses in Study 3**

Variables	Model 1 DV: Co-decider persuasiveness 1	Model 2 DV: Co-decider persuasiveness 2	Model 3 DV: Co-decider persuasiveness 1	Model 4 DV: Co-decider persuasiveness 2	Model 5 DV: Co-decider competence
<b>Predictors</b>					
Co-decider confidence	0.05 (0.14)	7.04 (4.93)	0.20 (0.19)	15.10* (6.78)	0.14 (0.14)
Competitiveness	-0.44** (0.14)	-12.36* (4.94)	-0.28 (0.20)	-3.81 (6.98)	-0.63*** (0.14)
Co-decider confidence × Competitiveness			-0.31 (0.28)	-17.01 (9.85)	
<i>R</i> <sup>2</sup>	.02	.02	.03	.03	.05
<i>F</i>	4.98**	4.20*	3.73*	3.81*	11.01***
Variables	Model 6 DV: Co-decider competence	Model 7 DV: Co-decider dominance	Model 8 DV: Co-decider dominance	Model 9 DV: Co-decider persuasiveness 1	Model 10 DV: Co-decider persuasiveness 2
<b>Predictors</b>					
Co-decider confidence	0.57** (0.19)	2.10*** (0.15)	1.36*** (0.20)	-0.08 (0.19)	17.26* (7.14)
Competitiveness	-0.17 (0.19)	0.21 (0.15)	-0.58** (0.20)	-0.19 (0.19)	-5.07 (6.97)
Co-decider confidence × Competitiveness	-0.90*** (0.27)		1.57*** (0.29)	-0.03 (0.27)	-6.55 (10.25)
Co-decider competence				0.38*** (0.05)	5.11** (1.81)
Co-decider dominance				0.04 (0.05)	-3.72* (1.71)
<i>R</i> <sup>2</sup>	.08	.34	.39	.17	.06
<i>F</i>	11.20***	101.87***	83.00***	15.70***	4.72***

Notes: \**p* < 0.05; \*\**p* < 0.01; \*\*\**p* < 0.001. All regression coefficients are unstandardized. Numbers in parentheses represent standard errors. DV is used to indicate dependent variable. Co-decider confidence and competitiveness are each coded as 0 = low condition and 1 = high condition. Co-decider persuasiveness 1 and 2 indicate different measures of persuasiveness; persuasiveness 1 (self-report) refers to participants' assessment of the co-decider's persuasiveness based on the self-report persuasiveness scale whereas persuasiveness 2 reflects participants' behavioral preference changes in the decision task.