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Metamotivational Knowledge of Others' Achievement Goals in a Work Context

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Achievement goals have been overlooked in the emerging literature on metamotivation. In the present research, we conducted three experiments (two preregistered) with large samples (total $N \sim 3{,}600$) designed to test metamotivational accuracy of others' achievement goals in a work context. We put participants in the role of employer and provided them with information on a job applicant's primary achievement goal. Participants then indicated their likelihood of interviewing the candidate and provided their judgments of the applicant's competence and warmth. We found clear and consistent evidence that participants were most likely to grant an interview to mastery-approach goal applicants ("Master tasks and improve in my job") and least likely to grant an interview to performance-avoidance goal applicants ("Avoid performing worse than others in my job"), with performance-approach goal applicants ("Perform better than others in my job") in the middle. These findings represent metamotivational accuracy when compared to existing meta-analyses and systematic narrative reviews of the literature. Perceived competence and warmth mediated the effects of applicant achievement goal on interview likelihood. The findings generalized across applicant gender, type of occupation, participant gender, and prior interviewer experience. We discuss the conceptual implications of the research, lay out avenues for future empirical work, and highlight the integrative nature of our work across prominent and promising literatures.

Keywords: metamotivation, achievement goals, competence, warmth, interview likelihood

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Metamotivational knowledge represents the beliefs that individuals hold about how motivation works (Murayama et al., 2016; Scholer & Miele, 2016). A key aspect of metamotivational knowledge is whether people have an accurate understanding of which forms of motivation are most beneficial and detrimental for certain tasks or activities (Miele et al., 2020). Such knowledge can be explicit and readily accessible, but it is often implicit and tacit (Nguyen et al., 2023; Wagner & Sternberg, 1985). This knowledge is important because it impacts the way that individuals engage in activities and it is the foundation on which the regulation of one's own and others' motivation rests (Miele et al., 2020; Scholer et al., 2018).

Research on metamotivational knowledge is sparse but growing. The existing studies typically provide participants with scenarios depicting various types of motivation that prior research has shown to be beneficial or detrimental. They are then asked to provide a preference, prediction, or judgment that reflects whether they think the motivation would be beneficial or detrimental; from their responses, participants' accurate or inaccurate metamotivational knowledge is revealed. This research has yielded informative findings regarding regulatory focus (Scholer & Miele, 2016), construal level (MacGregor et al., 2017), intrinsic motivation (Murayama et al., 2016), self-determination (Yu et al., 2023), and self-affirmation (Reeves et al., 2023). However, empirical work has yet to be conducted on metamotivational knowledge of achievement goals. Furthermore, existing work has focused on understanding one's own motivation; little attention has been allocated to understanding the motivation of others (for an exception, see Jansen et al., 2022). In addition, research to date has been acontextual or focused on the academic context (MacGregor et al., 2017; Yu et al., 2023) and has largely ignored the work context (for an exception, see Jansen et al., 2022). Finally, extant work has focused on motivation at the level of specific tasks or activities (e.g., proofreading, Scholer & Miele, 2016; dieting, MacGregor et al., 2017) and concrete outcomes (e.g., task performance); it has largely ignored motivation at the level of broader, overall tasks or roles (e.g., being a student at school or an employee at a job; for an exception, see Yu et al., 2023) and aggregate outcomes (e.g., attributes such as competence that reflect performance over time and situations).

In the present research, we conducted three experiments focused on the achievement goals of others within a work context. Specifically, we put participants in the role of employer of a midsize company and provided them with information on a job applicant's primary achievement goal. Participants then indicated their likelihood of interviewing the candidate, thereby revealing their tacit metamotivational knowledge of which type of achievement goal is most beneficial and detrimental for the job. We also had participants provide judgments of the job

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applicant's competence and warmth which we examined as mediators of the achievement goal to interview likelihood relation. Examination of mediational mechanisms remains rare in the nascent metamotivational knowledge literature (see Nguyen et al., 2019; Yu et al., 2023).

Achievement Goals

Achievement goals (also labeled goal orientations) are the competence-based strivings that individuals adopt and pursue (Elliot, 1997). From a social-cognitive theoretical perspective—specifically, the achievement goal approach to achievement motivation—these goals establish a perceptual framework that guides how a person thinks, feels, and behaves in achievement settings across school, sport, and work domains (Dweck, 1986; Nicholls, 1984). The most commonly used model of achievement goals in the work domain is the trichotomous model (Elliot & Harackiewicz, 1996; Vandewalle, 1997) which comprises the following goals (using labels from Elliot, 1999): A mastery-approach goal focused on attaining task- or self-based competence, a performance-approach goal focused on attaining competence relative to others, and a performance-avoidance goal focused on avoiding incompetence relative to others.

The nomological network for these three goals is well established. Meta-analytic and systematic narrative reviews, both in general and those focused on the work domain specifically, show that each of the goals is a robust predictor of important achievement-relevant processes and outcomes. Mastery-approach goals have yielded a largely positive empirical pattern: They have been found to be positively related to performance, intrinsic motivation, help-seeking, self-efficacy, feedback seeking, organizational citizenship behavior, adjustment and adaptation, training transfer, and transformational leadership, and negatively related to cheating behavior and anxiety (Baranik et al., 2010; Huang, 2016; Kanfer et al., 2017; Payne et al., 2007; Scherrer et al., 2020; Stasielowicz, 2019; Vandewalle et al., 2019; Van Yperen & Orehek, 2013; Wirthwein et al., 2013). Performance-avoidance goals have yielded a largely negative empirical pattern: They have been found to be negatively related to performance, intrinsic motivation, help-seeking, self-efficacy, feedback seeking, adjustment and adaptation, training transfer, and metacognitive activity, and positively related to cheating behavior and anxiety (Baranik et al., 2010; Cellar et al., 2011; Huang, 2011; Hulleman et al., 2010; Murayama & Elliot, 2012; Payne et al., 2007; Stasielowicz, 2019; Vandewalle et al., 2019; Van Yperen & Orehek, 2013). Performance-approach goals have produced a mixed empirical yield: They have been found to be positively related to performance, intrinsic motivation, self-efficacy, transactional leadership, but also cheating behavior, anxiety, and exploitation of others, and negatively related to sharing knowledge with others (Burnette et al., 2013; Huang, 2016; Payne et al., 2007; Scherrer et al., 2020; Vandewalle et al., 2019; Van Yperen & Orehek, 2013, Van Yperen et al., 2014). In short, mastery-approach, performance-avoidance, and performance-approach goals have been linked to positive, negative, and mixed nomological networks, respectively, and the key question at hand is whether people have accurate metamotivational knowledge of these empirically documented achievement goal relations, as manifest in their judgments of others' employability in a job interview paradigm.

Achievement Goals to Interview Likelihood

People clearly believe that a high level of achievement motivation is a valuable employee characteristic. There are several ways that this belief is manifest: Survey data show that employers commonly include high achievement motivation (e.g., "hard-working") on their list of desired employee characteristics (Greenwood et al., 1987; Robertson & Smith, 2001), content analyses show that job ads often emphasize the importance of high employee achievement motivation ("highly motivated to be successful"; MacArthur et al., 2017; Verma et al., 2017), and employers sometimes include a measure of trait achievement motivation or conscientiousness (that includes an achievement striving facet) in the assessments they give potential employees (Bettschart et al., 2021; Sackett & Lievens, 2008). This belief that high achievement motivation is beneficial in the workplace represents accurate metamotivational knowledge, as a great deal of empirical work has documented these benefits (Brandstätter, 2011; Cooper, 1983; Collins et al., 2004; Rauch & Frese, 2007; Shane et al., 2003; Spangler, 1992). Importantly, this belief and these data focus on the quantity of achievement motivation (i.e., high vs. low); they are silent on the quality of achievement motivation (i.e., specific type).

The achievement goal construct differentiates achievement motivation into qualitatively distinct types of competence-based striving—mastery-approach, performance-approach, and performance-avoidance goals in the trichotomous model—with each goal having a unique nomological network. Knowledge about achievement motivation, including knowledge about achievement goal-outcome patterns, undoubtedly comes from multiple sources, perhaps most importantly, personal experience (for similar proposals regarding other forms of motivation, see Jansen et al., 2022; Nguyen et al., 2019). Achievement settings are ubiquitous in daily life, so individuals have extensive experiences of striving in achievement settings, including work settings; over time these experiences likely produce an implicit, tacit understanding of different types of achievement strivings and their implications. Other knowledge sources likely include socialization from others (parents, teachers, employers; Reeves et al., 2023; Scholer & Miele, 2016), observing others (Dicke et al., 2012; Weissman & Elliot, 2023), and intuition and logical reasoning (Hangen et al., 2019; Miele et al., 2020).

Although some research in the metamotivational literature has documented inaccuracy (especially regarding intrinsic motivation; Heath, 1999; Kuratomi et al., 2023; Murayama et al., 2016), most studies have demonstrated at least some degree of metamotivational accuracy (for reviews see Miele et al., 2020; Yu et al., 2023). With regard to achievement goals, we expected accuracy in this first empirical investigation, given the aforementioned extensive experience with these goals in daily life and the considerable benefits of accuracy in selecting which goals to desire, discourage, and foster in oneself and others. That is, we anticipated that the goal-interview likelihood judgments in our experiments would map onto the goal-nomological network patterns documented in the literature. Our specific hypotheses are as follows:

Hypothesis 1a: Participants are more likely to grant an interview to an applicant reporting a mastery-approach goal than a performance-approach goal.

Hypothesis 1b: Participants are more likely to grant an interview to an applicant reporting a mastery-approach goal than a performance-avoidance goal.

Hypothesis 1c: Participants are more likely to grant an interview to an applicant reporting a performance-approach goal than a performance-avoidance goal.

Achievement Goals to Basic Social Impressions

Metamotivation researchers have called for empirical work on mechanisms (Miele et al., 2020; Nguyen et al., 2023), and in our research, we tested basic social impressions as specific psychological processes responsible for the hypothesized relations. There is a strong consensus in the impression formation literature that social perceivers have a fundamental propensity to evaluate others, especially in initial encounters, along two basic dimensions: competence and warmth (Fiske et al., 2007). Competence reflects characteristics such as capability, assertiveness, and efficiency; warmth reflects characteristics such as trustworthiness, kindness, and friendliness (Fiske et al., 2007; for reviews, including information on alternative two-factor models of impression formation, see Abele & Wojciszke, 2014; Fiske, 2018; Judd et al., 2005). Competence provides information on whether the target of social perception is able to carry out their intentions, while warmth provides information on whether those intentions are friendly or hostile (Cuddy et al., 2011; Fiske et al., 2007). Competence and warmth perceptions are purported to be of universal importance and have been shown to predict important outcomes in the workplace (for a review, see Cuddy et al., 2011), including hiring evaluations and decisions (Amaral et al., 2019; Fetscherin et al., 2020; Varghese et al., 2018).

We posit that when individuals are presented with information on another person's achievement goals, they make basic inferences about the target person's competence and warmth. Competence is the conceptual core of achievement goals and is of clear utility in the workplace; warmth is pertinent to how these competence-relevant strivings impact others, especially in situations involving interdependence (such as the workplace). Thus, it seems both logical and functional for individuals to derive competence and warmth inferences from achievement goal information in the work domain.

Some relevant research has been conducted in the school domain. For example, Darnon et al. (2009) provided student participants with information about another student's achievement goals and had them rate how they thought their teachers would view the target student on social utility (similar to competence) and social desirability (similar to warmth). Results indicated that mastery-approach goal students were perceived as high in both social utility and social desirability, performance-approach goal students were perceived as high in social utility but low in social desirability, and performance-avoidance goal students did not elicit specific perceptions of social utility but were perceived as high in social desirability (for related work see Cohen et al., 2017; Dompnier et al., 2008). Researchers have yet to conduct research on achievement goals and competence/warmth evaluations per se, and have yet to conduct any relevant research in the work domain.

Basic competence and warmth inferences about others' achievement goals are grounded in both tacit beliefs about achievement goals (as overviewed earlier) and the context in which the achievement goal information is gleaned. In the present research, participants are presented with a job applicant's self-reported primary achievement goal and are asked to make competence and warmth evaluations of the applicant. Mastery-approach goals have been linked to positive performance outcomes (Janssen & Van Yperen, 2004) and positive interpersonal outcomes (e.g., citizenship behavior, knowledge sharing, reciprocity; Louw et al., 2016; Poortvliet et al., 2007; Poortvliet & Giebels, 2012); self-reporting this goal seems unequivocally positive, accordingly. Thus, we anticipate that participants will link applicants' mastery-approach goals to perceptions of high competence and high warmth. Performance-approach goals have been linked to positive performance outcomes (Porath & Bateman, 2006), but negative interpersonal outcomes (e.g., workplace deviance, knowledge hoarding; exploitation; Louw et al., 2016; Poortvliet et al., 2007; Poortvliet et al., 2012). Furthermore, an applicant self-reporting a performance-approach goal may also be perceived as immodest or self-aggrandizing (Gerhart & Lee, 2013). Thus, we anticipate that participants will link applicants' performance-approach goals to perceptions of high competence, but low warmth. Performance-avoidance goals have been linked to negative performance outcomes (Kanfer et al., 2017) and negative interpersonal outcomes (e.g., less help-giving, less organizational commitment, and citizenship behavior; Chiaburu et al., 2007; Kraemer et al., 2021; Martin & Topa, 2019). However, an applicant self-reporting a performance-avoidance goal may be perceived as modest or self-deprecating (Diekmann et al., 2015; Gerhart & Lee, 2013) and, accordingly, kind and likable (characteristics associated with warmth; Budworth, 2020; Darnon et al., 2009). Thus, we anticipate that participants will link applicants' performance-avoidance goals to perceptions of low competence and moderate warmth (averaging together the aforementioned negative and positive considerations regarding warmth). In short, the existing literature shows very clear links between achievement goals and competence-relevant variables in the workplace (for meta-analyses, see Payne et al., 2007; Van Yperen et al., 2014), as well as clear links between achievement goals and warmth-relevant variables in the workplace (for narrative reviews, see Van Yperen & Orehek, 2013; Vandewalle et al., 2019). As with the goal-interview likelihood judgments, we anticipate that participants will exhibit metamotivational accuracy in their goal-attribute judgments, based on both their extensive daily experience with achievement goals and the benefits of correctly discerning which goals produce which attributes. Our specific hypotheses are as follows:

> *Hypothesis 2a*: Participants perceive applicants reporting a mastery-approach goal as neither more nor less competent than those reporting a performance-approach goal.[1]
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> *Hypothesis 2b*: Participants perceive applicants reporting a mastery-approach goal as more competent than those reporting a performance-avoidance goal.
>
> *Hypothesis 2c*: Participants perceive applicants reporting a performance-approach goal as more competent than those reporting a performance-avoidance goal.
>
> *Hypothesis 2d*: Participants perceive applicants reporting a mastery-approach goal as more warm than those reporting a performance-approach goal.
>
> *Hypothesis 2e*: Participants perceive applicants reporting a mastery-approach goal as more warm than those reporting a performance-avoidance goal.

[1] Here, and in a few other instances (including preregistered predictions), we anticipated finding no difference between achievement goal conditions or anticipated finding no evidence for mediation. We acknowledge that we are unable to prove the null hypothesis in our work, and encourage the reader to interpret our null findings cautiously (as descriptive rather than inferential), accordingly.

Hypothesis 2f: Participants perceive applicants reporting a performance-approach goal as less warm than those reporting a performance-avoidance goal.

Basic Social Impressions to Interview Likelihood and Mediation

The link between basic social impressions and interview likelihood is straightforward. Both competence and warmth are highly valued in work settings (Cuddy et al., 2011) and high levels of both characteristics should predict a positive interview outcome. Prior research has supported these links, including work focused on the initial screening of job applicants (Fetscherin et al., 2020; Halper et al., 2019; Thomas, 2018). Our hypotheses are as follows:

Hypothesis 3a: Applicants perceived as high in competence are more likely to be granted an interview.

Hypothesis 3b: Applicants perceived as high in warmth are more likely to be granted an interview.

We additionally anticipated that competence and warmth serve as mediators explaining the hypothesized links between applicants' primary achievement goal and interview likelihood. Our hypotheses are as follows:

Hypothesis 4a: The predicted mastery-approach versus performance-approach goal difference in interview likelihood is not mediated by competence perceptions.

Hypothesis 4b: The predicted mastery-approach versus performance-approach goal difference in interview likelihood is mediated by warmth perceptions.

Hypothesis 4c: The mastery-approach versus performance-avoidance goal difference in interview likelihood is mediated by competence perceptions.

Hypothesis 4d: The mastery-approach versus performance-avoidance goal difference in interview likelihood is mediated by warmth perceptions.

Hypothesis 4e: The performance-approach versus performance-avoidance goal difference is mediated by competence perceptions.

Hypothesis 4f: The performance-approach versus performance-avoidance goal difference is mediated by warmth perceptions.

The Present Research

The present research is comprised three experiments testing the influence of an applicant's primary achievement goal on participants' evaluation of the likelihood of granting the applicant an interview, and whether this relation is mediated by perceptions of the applicant's competence and warmth. The target applicants' gender and the focal occupation were varied across experiments to test the generalizability of the findings. Experiment 1 focused on a male applying for a male-dominant job, Experiment 2 focused on a female applying for a female-dominant job, and Experiment 3 focused on both a male and a female applying for a gender-neutral job.

In each experiment, all manipulations, variables analyzed, and data exclusions are reported; all data were collected before any analyses were conducted. All hypotheses and analyses were established a priori; these were not preregistered for the initial experiment but were preregistered for the two subsequent experiments. Preregistration documents, raw data files, R code, and study materials are available at https://osf.io/nsyb4/. All participants provided informed consent; all experiments were approved by the local research ethics board.

Experiment 1

In Experiment 1, we tested our hypotheses using a male candidate applying for the job of software designer.

Method

Participants

We conducted an a priori power analysis (G*Power; Faul et al., 2009) to estimate the sample size needed to detect a small effect ($f^2 = 0.01$) in a three-condition between-participants experiment (represented by two dummy-coded variables) with .80 power and $\alpha = .05$ (two-tailed). The required sample size was 967 participants, and we added 10% as a buffer (to accommodate possible exclusions) to yield a target sample size of 1,064.

Participants were recruited using CloudResearch's MTurk Toolkit and were compensated $0.25. We slightly exceeded our target sample size, collecting data from $N = 1{,}097$ participants based in the United States. The sample was 48.4% male, 51.1% female, 0.5% other/unspecified; $M_{age} = 37.50$ years ($SD = 11.81$; range = 19–96); 77.3% Caucasian/White, 8.8% Black/African-American, 6.9% Asian/Pacific Islander, 3.6% Hispanic/Latinx, 2.1% Native American/American Indian, and 1.3% other/unspecified. In response to the question "Have you ever been in a position where you interviewed job candidates for hiring purposes?," 59.3% answered "Yes."

Procedure, Manipulation, and Measures

After providing informed consent, participants were instructed to envision that they worked at a medium-sized software company and that they were responsible for hiring a new software designer. Their task was to examine an applicant's profile and provide an evaluation (see Sarkar et al., 2022, for a similar procedure). The applicant profile contained the following information for all participants:

Name: Joseph

Gender: Male

Age: 26 years old

Marital Status: Single

Education level: Completed college

Work experience: 3 years full-time.

The last entry in the profile was "Primary work goal (as self-reported on the work motivation scale)": and this varied by condition: "Master tasks and improve in my job" for mastery-approach goal applicants ($n = 355$), "Perform better than others in my job" for performance-approach goal applicants ($n = 382$), and "Avoid performing worse than others in my job" for performance-avoidance

goal applicants ($n = 350$). Following this manipulation of the primary achievement goal, participants answered instruction checks for applicant gender (98.2% answered correctly) and primary work goal (95.1% answered correctly). In this and the subsequent experiments, we decided a priori to retain all participants, regardless of how they answered the instruction checks (i.e., we used them to reiterate important information and confirm that participants read the materials carefully, not to eliminate careless participants).

Participants then provided their impressions of the applicant by responding to four perceived competence questions ("How _____ is Joseph?": "competent," "capable," "confident," "efficient"; $\alpha = .91$) and four perceived warmth questions ("How _____ is Joseph?": "warm," "good natured," "helpful," "generous"; $\alpha = .94$) on a 0 (*least*) to 10 (*most*) scale. These items, which were randomly interspersed and then provided in the same order across participants in this and the subsequent experiments, represented the four strongest loaders in a principal component analysis of perceived competence and warmth data from Sarkar et al. (2022).[2]

Finally, participants provided an overall evaluation of the applicant. Specifically, they responded to the question (based on Oesch, 2020): "What is the likelihood that you would invite Joseph for a job interview? 0 (*very unlikely*) to 10 (*very likely*)."

Results

Overview of Analyses

First, we regressed the focal outcome (interview likelihood) onto two dummy-coded predictor variables representing the three primary achievement goal conditions. We conducted each regression analysis twice to capture the three pairwise comparisons (i.e., mastery-approach goal vs. performance-approach goal, mastery-approach goal vs. performance-avoidance goal, performance-approach goal vs. performance-avoidance goal). Second, we regressed each of the proposed mediators (perceived competence and perceived warmth) onto the two dummy-coded predictor variables. Third, we regressed interview likelihood onto the two dummy-coded predictor variables with perceived competence and perceived warmth included to test the proposed mediators as simultaneous predictors of the focal outcome. Using the lavaan package in R (Rosseel, 2012), we tested the parallel indirect effects of primary achievement goal on interview likelihood via perceived competence and warmth using 5,000 bootstrapped samples. Across all analyses, nonbinary variables were mean-centered and scaled by two standard deviations (Gelman, 2008), and 95% confidence intervals were reported in brackets. Table 1 presents the descriptive statistics and intercorrelations among the measured variables, Table 2 presents the full results, and Figure 1 presents the main findings.

Primary Analyses

Achievement Goal to Interview Likelihood. As predicted, mastery-approach goal applicants ($M = 7.56$, $SD = 1.80$) were more likely to be invited for an interview than performance-approach goal applicants ($M = 6.81$, $SD = 2.28$; $\beta = .14$ [0.08, 0.21], $p < .001$) and performance-avoidance goal applicants ($M = 5.30$, $SD = 3.09$; $\beta = .43$ [0.36, 0.50], $p < .001$). Also as predicted, performance-approach goal applicants were more likely to be invited than performance-avoidance goal applicants ($\beta = .29$ [0.22, 0.36], $p < .001$).

Achievement Goal to Perceived Competence. As predicted, mastery-approach goal applicants ($M = 7.28$, $SD = 1.48$) and performance-approach goal applicants ($M = 7.36$, $SD = 1.48$) did not differ on perceived competence ($\beta = -.02$ [−0.09, 0.05], $p = .507$), but mastery-approach goal applicants were higher in perceived competence than performance-avoidance goal applicants ($M = 6.12$, $SD = 2.12$; $\beta = .32$ [0.25, 0.39], $p < .001$). Also as predicted, performance-approach goal applicants were higher in perceived competence than performance-avoidance goal applicants ($\beta = .34$ [0.28, 0.41], $p < .001$).

Achievement Goal to Perceived Warmth. As predicted, mastery-approach goal applicants ($M = 6.81$, $SD = 1.60$) were higher in perceived warmth than performance-approach goal applicants ($M = 5.97$, $SD = 2.12$; $\beta = .21$ [0.14, 0.28], $p < .001$) and performance-avoidance goal applicants ($M = 5.87$, $SD = 2.01$; $\beta = .24$ [0.17, 0.31], $p < .001$). Contrary to prediction, performance-approach goal applicants were not lower in perceived warmth than performance-avoidance goal applicants ($\beta = .03$ [−0.05, 0.10], $p = .479$).

Mediation via Perceived Competence and Warmth. As predicted, interview likelihood was simultaneously predicted by perceived competence ($\beta = .49$ [0.44, 0.54], $p < .001$) and perceived warmth ($\beta = .37$ [0.32, 0.41], $p < .001$). Five of the six mediational hypotheses were supported in the bootstrap analyses (see Figure 2 for the individual path models). The mastery-approach goal versus performance-approach goal effect on interview likelihood was not mediated by perceived competence (indirect effect = −0.01 [−0.04, 0.02], $p = .441$), but was mediated by perceived warmth (indirect effect = 0.08 [0.05, 0.11], $p < .001$). The mastery-approach goal versus performance-avoidance goal effect on interview likelihood was mediated by perceived competence (indirect effect = 0.16 [0.12, 0.20], $p < .001$) and perceived warmth (indirect effect = 0.09 [0.06, 0.12], $p < .001$). The performance-approach goal versus performance-avoidance goal effect on interview likelihood was mediated by perceived competence (indirect effect = 0.17 [0.13, 0.21], $p < .001$), but (inconsistent with prediction) not perceived warmth (indirect effect = 0.01 [−0.02, 0.04], $p = .486$).

Ancillary Analyses

Ancillary analyses (determined a priori, but without predictions) testing participant gender (1 = *female*, 0 = *male*) and prior interviewer experience (1 = *yes*, 0 = *no*) as moderators of applicant achievement goal were also conducted. In these analyses, gender or prior interviewer experience was added to the regression models, along with the relevant interaction terms.

The participant gender moderation analyses yielded a few significant effects. Likewise, the prior interviewer experience moderation analyses yielded a few significant effects. Given their ancillary nature and lack of replication in the subsequent experiments, we report all ancillary results in the online supplemental materials.

[2] There was one exception—the item "competitive" was not included in the perceived competence measure given its conceptual overlap with performance-based goals (see the online supplemental materials for details).

Table 1

Experiments 1 (Upper Panel), 2 (Middle Panel), and 3 (Lower Panel): Descriptive Statistics and Pearson Product Moment Correlation Coefficients for Measured Variables

Variable	*N*	*M*	*SD*	1	2	3	4
Experiment 1							
1. Interview likelihood	1,097	6.57	2.61	—			
2. Perceived competence	1,096	6.94	1.79	.79***	—		
3. Perceived warmth	1,097	6.21	1.97	.74***	.71***	—	
4. Participant gender (*female* = 1, *male* = 0)	1,092	—	—	−.07*	−.00	−.06*	—
5. Prior interview experience (*yes* = 1, *no* = 0)	1,097	—	—	.10***	.05	.14***	−.11***
Experiment 2							
1. Interview likelihood	1,103	6.72	2.65	—			
2. Perceived competence	1,100	6.96	1.80	.75***	—		
3. Perceived warmth	1,099	6.13	1.79	.67***	.69***	—	
4. Participant gender (*female* = 1, *male* = 0)	1,098	—	—	−.04	.05	−.03	—
5. Prior interview experience (*yes* = 1, *no* = 0)	1,103	—	—	−.02	−.04	.01	−.08**
Experiment 3							
1. Interview likelihood	1,465	6.38	2.76	—			
2. Perceived competence	1,465	6.70	1.90	.78***	—		
3. Perceived warmth	1,464	5.75	1.89	.70***	.71***	—	
4. Participant gender (*female* = 1, *male* = 0)	1,466	—	—	.03	.04	.04	—
5. Prior interview experience (*yes* = 1, *no* = 0)	1,465	—	—	−.08**	−.13***	−.05	−.02

Note. The magnitude of the correlations between perceived competence and perceived warmth, and between these two variables and interview likelihood are comparable to those observed in other research in the work domain (see Halper et al., 2019; Martinez et al., 2022; Merritt et al., 2018). In addition, it is important to remember that the relations between the perceived competence and perceived warmth variables and interview likelihood reported in the text are tested using simultaneous multiple regression analysis.

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

Discussion

In sum, results from Experiment 1 supported all hypotheses except those involving performance-approach versus performance-avoidance goals and warmth. We had predicted that a performance-approach goal would lead to lower perceived warmth relative to a performance-avoidance goal, based on the assumption that self-reporting a performance-avoidance goal might be viewed as modest, and that this would mitigate the otherwise negative influence of performance-avoidance goals on perceived warmth. In contrast, we found no difference between performance-approach and performance-avoidance goals.

Experiment 2

The results of Experiment 1 suggest two possibilities: (a) modesty perceptions may not be operative or (b) modesty may be viewed as a weakness (insecurity, self-protection) rather than a strength in our paradigm (see Moss-Racusin et al., 2010). If either is correct, no difference would be expected between performance-approach and performance-avoidance goals on perceived warmth. Accordingly, for Experiment 2 we revised the relevant hypotheses as follows:

> *Hypothesis 2f′*: Participants perceive applicants reporting a performance-approach goal as neither more nor less warm than those reporting a performance-avoidance goal.
>
> *Hypothesis 4f′*: The predicted performance-approach versus performance-avoidance goal difference in interview likelihood is not mediated by perceived warmth.

In Experiment 1, the target was a male candidate applying for a male-dominant job—software designer. In Experiment 2, we sought to test the generalizability of the findings from Experiment 1 to a female candidate applying for a job in which females are overrepresented—librarian. All hypotheses and analyses for this experiment were preregistered at AsPredicted.org (53677; https://aspredicted.org/blind.php?x=/RWS_4QG).

Method

Participants, Procedure, Manipulation, and Measures

The design was the same as that of Experiment 1, so we used the same a priori power estimate and target sample size of 1,064. Participants were again recruited using CloudResearch's MTurk Toolkit and compensated $0.25. We slightly exceeded our target sample size, collecting data from $N = 1{,}103$ participants based in the United States (mastery-approach goal $n = 372$, performance-approach goal $n = 368$, performance-avoidance goal $n = 363$). The sample was 48.4% male, 51.1% female, 0.5% other/unspecified; $M_{age} = 38.71$ years ($SD = 13.12$; range = 18–89); 73.5% Caucasian/White, 9.1% Black/African-American, 8.3% Asian/Pacific Islander, 6.9% Hispanic/Latinx, 0.9% Native American/American Indian, and 1.3% other. In response to the question "Have you ever been in a position where you interviewed job candidates for hiring purposes?," 54.9% answered "Yes."

The procedure (including instructions), manipulation, and measures were the same as those used in Experiment 1, except for the target's name (Jessica) and occupation (librarian). Joseph, the name used in Experiment 1 and Jessica, the name used in this experiment, are both rated #8 on the U.S. Social Security list of popular child names from 1920 to 2019. Both names also regularly appear on both White and Black popular baby name lists (see Agerström et al., 2012, on the importance of attending to race in social impression research in the work domain). The occupation used in Experiment 1 and the occupation used in this experiment are approximately the same in gender dominance, according to the

Table 2

Experiments 1 (Upper Panel), 2 (Middle Panel), and 3 (Lower Panel): Standardized Coefficient Estimates and 95% CI for the Models Testing the Effect of the Primary Achievement Goal on Interview Likelihood via Perceived Competence and Warmth

Variable	Interview likelihood (c path)		Perceived competence (a1 path)		Perceived warmth (a2 path)		Interview likelihood (c′ and b1/b2 paths)	
	β	95% CI	β	95% CI	β	95% CI	β	95% CI
Experiment 1								
Primary achievement goal								
Mastery-approach versus performance approach	.14***	[0.08, 0.21]	−.02	[−0.09, 0.05]	.21***	[0.14, 0.28]	.08***	[0.04, 0.12]
Mastery-approach versus performance-avoidance	.43***	[0.36, 0.50]	.32***	[0.25, 0.39]	.24***	[0.17, 0.31]	.19***	[0.15, 0.23]
Performance-approach versus performance–avoidance	.29***	[0.22, 0.36]	.34***	[0.28, 0.41]	.03	[−0.05, 0.10]	.12***	[0.07, 0.16]
Perceived competence							.49***	[0.44, 0.54]
Perceived warmth							.37***	[0.32, 0.41]
Experiment 2								
Primary achievement goal								
Mastery-approach versus performance approach	.14***	[0.08, 0.21]	−.04	[−0.11, 0.02]	.22***	[0.15, 0.29]	.10***	[0.06, 0.15]
Mastery-approach versus performance-avoidance	.48***	[0.41, 0.54]	.41***	[0.35, 0.48]	.32***	[0.25, 0.39]	.18***	[0.13, 0.22]
Performance-approach versus performance–avoidance	.33***	[0.27, 0.40]	.46***	[0.39, 0.52]	.10**	[0.03, 0.17]	.07**	[0.02, 0.12]
Perceived competence							.51***	[0.45, 0.56]
Perceive warmth							.29***	[0.24, 0.34]
Experiment 3								
Primary achievement goal								
Mastery-approach versus performance approach	.12***	[0.07, 0.18]	−.06*	[−0.12, −0.01]	.20***	[0.14, 0.26]	.10***	[0.06, 0.13]
Mastery-approach versus performance-avoidance	.55***	[0.49, 0.61]	.45***	[0.39, 0.51]	.35***	[0.29, 0.41]	.22***	[0.18, 0.25]
Performance-approach versus performance–avoidance	.43***	[0.37, 0.48]	.51***	[0.46, 0.57]	.15***	[0.09, 0.21]	.12***	[0.08, 0.16]
Perceived competence							.52***	[0.47, 0.56]
Perceived warmth							.29***	[0.24, 0.33]
Gender	.03	[−0.02, 0.07]	.04	[−0.01, 0.08]	.04	[−0.01, 0.09]	−.01	[−0.03, 0.02]

Note. The leading zeros of the βs and the 95% CIs are omitted. CI = confidence interval. See Figures 2, 4, and 6 for the a1, a2, b1, b2, c, and c′ paths.
* $p < .05$. ** $p < .01$. *** $p < .001$.

U.S. Bureau of Labor Statistics (2019). Specifically, "software developer" was 81.3% male and "librarian" was 79.9% female.

The vast majority of participants correctly answered the instruction checks for applicant gender (99.7%) and primary work goal (96.9%). The internal consistencies for the perceived competence and perceived warmth variables were $\alpha = .91$ and $\alpha = .93$, respectively.

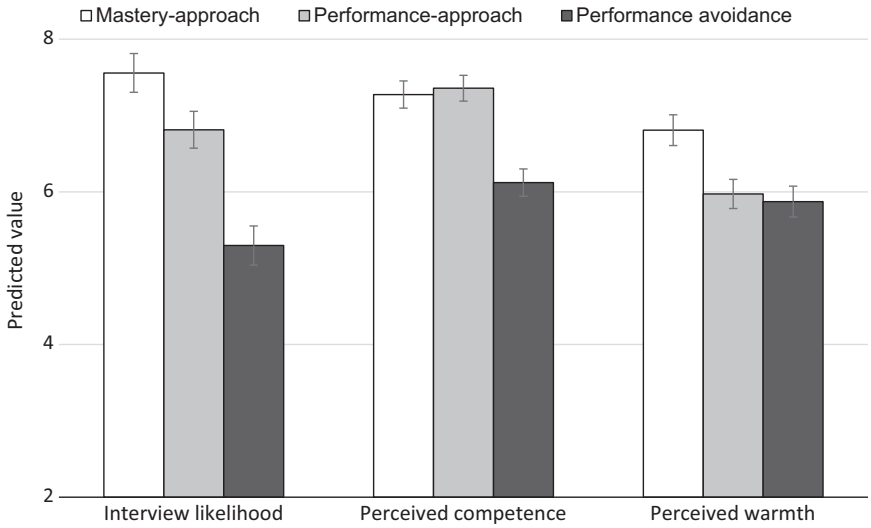
Results

Overview of Analyses

The data analytic strategy was the same as that used in Experiment 1, although in this experiment the hypotheses and

Figure 1

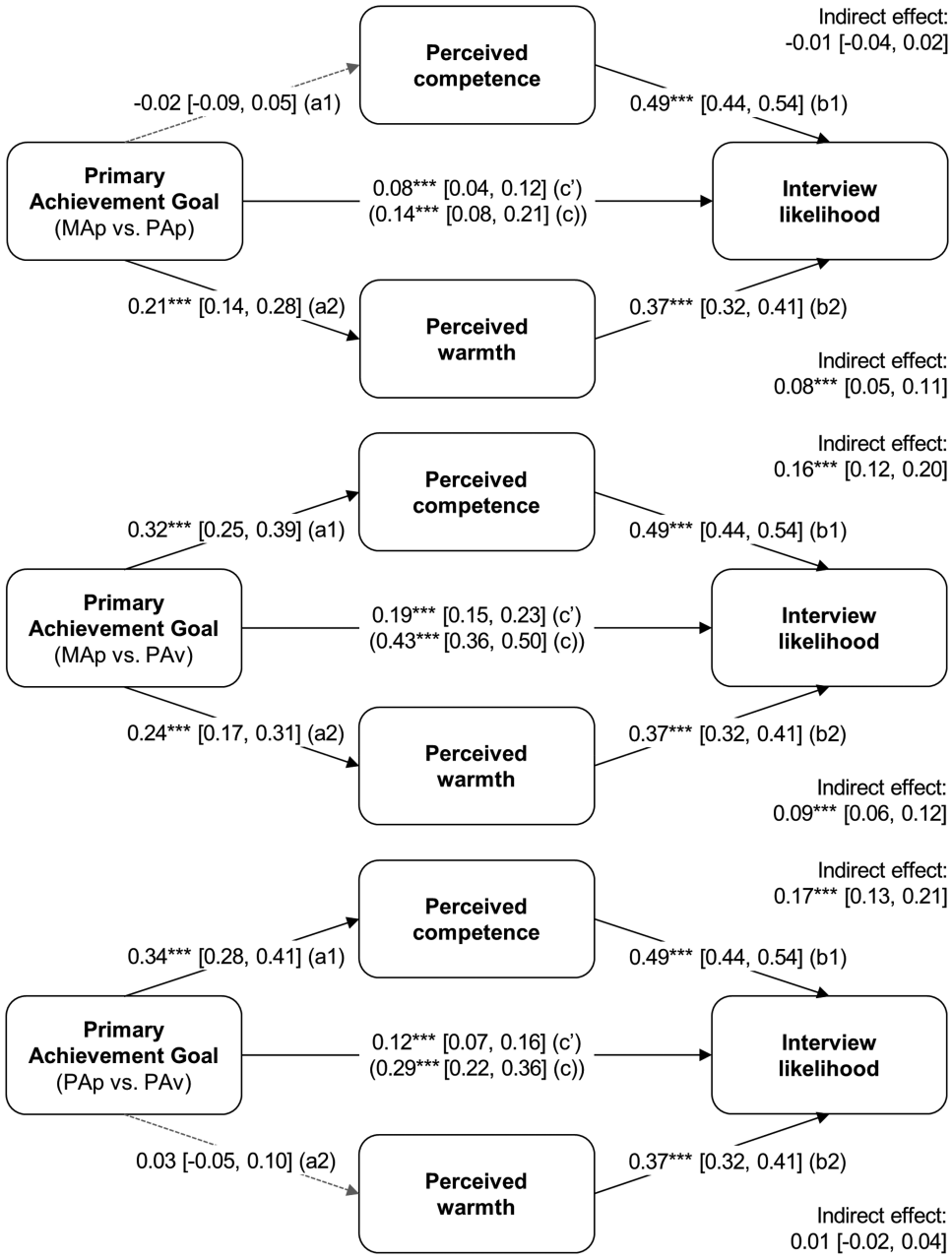
Experiment 1: Predicted Value of Interview Likelihood, Perceived Competence, and Perceived Warmth as a Function of Primary Achievement Goal



Note. Errors bars represent 95% CI. CI = confidence interval.

Figure 2

Experiment 1: Individuals Path Models Testing the Effect of the Primary Achievement Goal on Interview Likelihood via Perceived Competence and Warmth



Note. The total effect is given in parentheses. MAp = mastery-approach; PAp = performance-approach; PAv = performance-avoidance. Solid back lines represent significant effects ($p < .05$), whereas dashed gray lines represent nonsignificant effects.

*** $p < .001$.

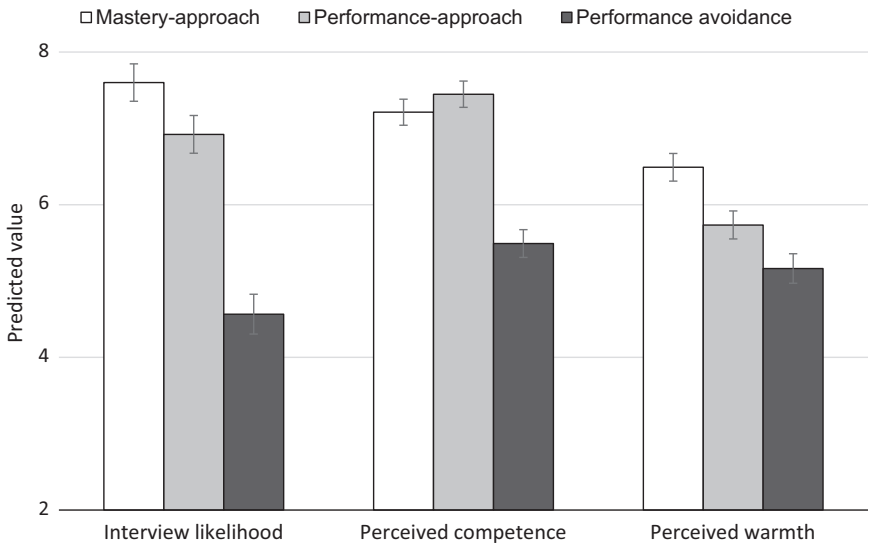
analyses were preregistered. Table 1 presents the descriptive statistics and intercorrelations among the measured variables, Table 2 presents the full results, and Figure 3 presents the main findings.

Primary Analyses

Achievement Goal to Interview Likelihood. As predicted, mastery-approach goal applicants ($M = 7.81$, $SD = 1.92$) were

Figure 3

Experiment 2: Predicted Value of Interview Likelihood, Perceived Competence, and Perceived Warmth as a Function of Primary Achievement Goal



Note. Errors bars represent 95% CI. CI = confidence interval.

more likely to be invited for an interview than performance-approach goal applicants ($M = 7.05$, $SD = 2.36$; $\beta = .14$ [0.08, 0.21], $p < .001$) and performance-avoidance goal applicants ($M = 5.28$, $SD = 2.93$; $\beta = .48$ [0.41, 0.54], $p < .001$). Also as predicted, performance-approach goal applicants were more likely to be invited than performance-avoidance goal applicants ($\beta = .33$ [0.27, 0.40], $p < .001$).

Achievement Goal to Perceived Competence. As predicted, mastery-approach goal applicants ($M = 7.40$, $SD = 1.42$) and performance-approach goal applicants ($M = 7.56$, $SD = 1.39$) did not differ in terms of perceived competence ($\beta = -.04$ [−0.11, 0.02], $p = .206$), but mastery-approach goal applicants were higher in perceived competence than performance-avoidance goal applicants ($M = 5.91$, $SD = 2.05$; $\beta = .41$ [0.35, 0.48], $p < .001$). Also as predicted, performance-approach goal applicants were higher in perceived competence than performance-avoidance goal applicants ($\beta = .46$ [0.39, 0.52], $p < .001$).

Achievement Goal to Perceived Warmth. As predicted, mastery-approach goal applicants ($M = 6.77$, $SD = 1.49$) were higher in perceived warmth than performance-approach goal applicants ($M = 5.98$, $SD = 1.83$; $\beta = .22$ [0.15, 0.29], $p < .001$) and performance-avoidance goal applicants ($M = 5.63$, $SD = 1.83$; $\beta = .32$ [0.25, 0.39], $p < .001$). Contrary to prediction, performance-approach goal applicants were higher in perceived warmth than performance-avoidance goal applicants ($\beta = .10$ [0.03, 0.17], $p = .007$).

Mediation via Perceived Competence and Warmth. As predicted, interview likelihood was simultaneously predicted by perceived competence ($\beta = .51$ [0.45, 0.56], $p < .001$) and perceived warmth ($\beta = .29$ [0.24, 0.34], $p < .001$). Five of the six mediational hypotheses were supported in the bootstrap analyses (see Figure 4 for path models). The mastery-approach goal versus performance-approach goal effect on interview likelihood was not mediated by perceived competence (indirect effect = −0.02 [−0.05, 0.01], $p = .164$) but was mediated by perceived warmth (indirect effect = 0.06 [0.04, 0.09], $p < .001$). The mastery-approach goal versus performance-avoidance goal effect on interview likelihood was mediated by perceived competence (indirect effect = 0.21 [0.17, 0.26], $p < .001$) and perceived warmth (indirect effect = 0.09 [0.07, 0.12], $p < .001$). The performance-approach goal versus performance-avoidance goal effect on interview likelihood was mediated by perceived competence (indirect effect = 0.23 [0.18, 0.28], $p < .001$) and (contrary to prediction) perceived warmth (indirect effect = 0.03 [0.01, 0.05], $p = .011$).

Ancillary Analyses

None of the participant gender moderation analyses yielded significant effects. Likewise, none of the prior interviewer experience moderation analyses yielded significant effects. Thus, the moderation effects observed in Experiment 1 were not replicated, suggesting that they may have emerged in that experiment by chance.

Discussion

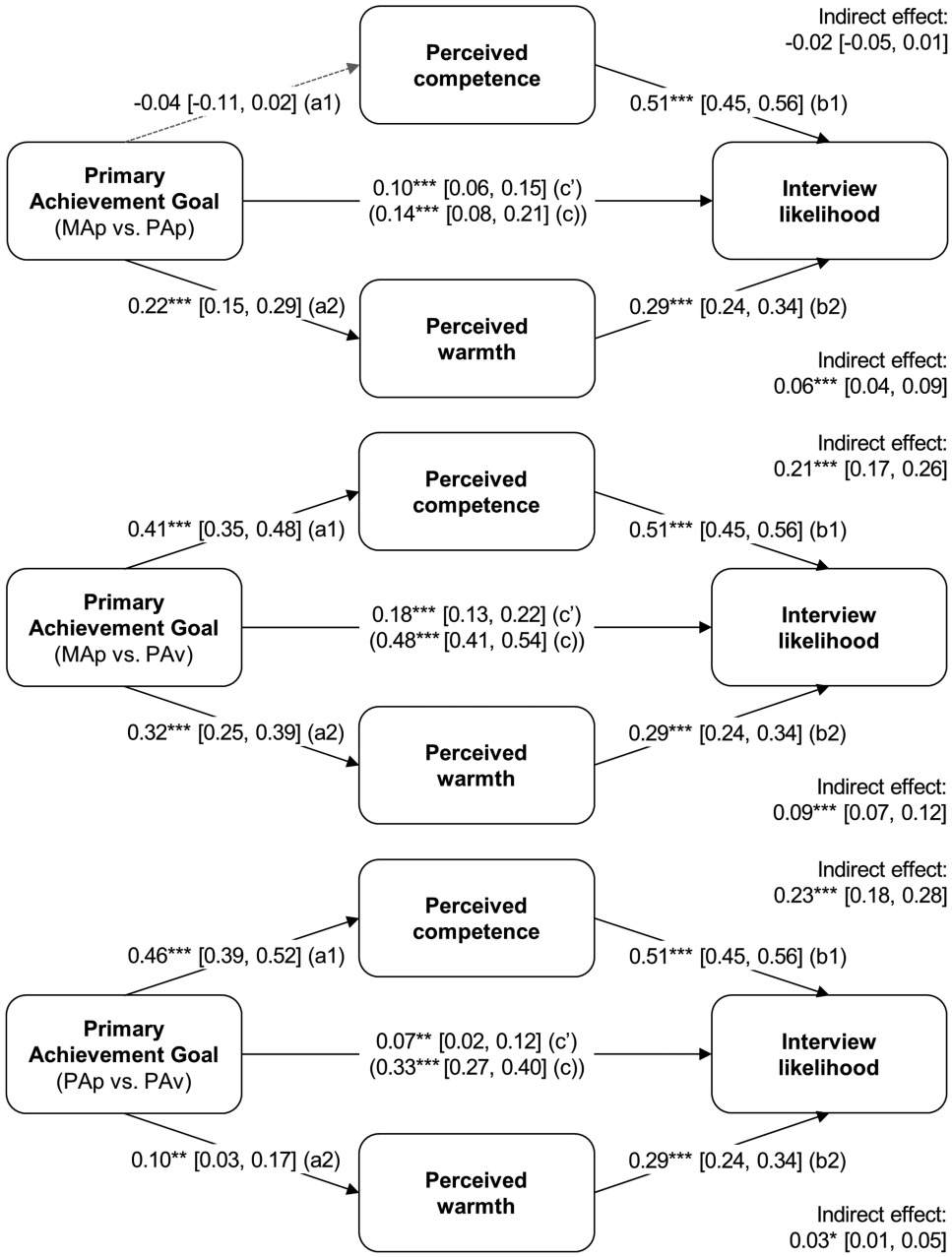
In sum, all hypotheses were again supported, except for those involving performance-approach versus performance-avoidance goals and warmth. We had predicted no difference in perceived warmth between applicants reporting a performance-approach goal and those reporting a performance-avoidance goal. Instead, we found greater perceived warmth for the performance-approach goal relative to the performance-avoidance goal condition.

Experiment 3

Given that we observed different patterns in Experiments 1 and 2 for the performance-approach versus performance-avoidance goal comparison, we entered Experiment 3 expecting one of two findings:

Figure 4

Experiment 2: Individuals Path Models Testing the Effect of the Primary Achievement Goal on Interview Likelihood via Perceived Competence and Warmth



Note. The total effect is given in parentheses. MAp = mastery-approach; PAp = performance-approach; PAv = performance-avoidance. Solid back lines represent significant effects ($p < .05$), whereas dashed gray lines represent nonsignificant effects.

** $p < .01$. *** $p < .001$.

Hypothesis 2f′ (stated earlier)*:* Participants perceive applicants reporting a performance-approach goal as neither more nor less warm than those reporting a performance-avoidance goal (consistent with the Experiment 1 results).

Hypothesis 2f″: Participants perceive applicants reporting a performance-approach goal as more warm than those reporting a performance-avoidance goal (consistent with the Experiment 2 results).

This experiment will yield information on which is the more robust result. Relatedly, we expected one of two mediational findings:

> *Hypothesis 4f′ (stated earlier):* The predicted performance-approach versus performance-avoidance goal difference in interview likelihood is not mediated by perceived warmth.
>
> *Hypothesis 4f″*: The predicted performance-approach versus performance-avoidance goal difference in interview likelihood is mediated by perceived warmth.

We conducted Experiments 1 and 2 with a male applicant in a male-dominant occupation (software designer) and a female applicant in a female-dominant occupation (librarian), respectively. In Experiment 3, we sought to test the generalizability of Experiments 1 and 2 findings to male and female applicants applying for the same gender-neutral occupation—insurance sales agent. All hypotheses and analyses for this experiment were preregistered at AsPredicted.org (#59990; https://aspredicted.org/LPT_CLC).

Method

Participants, Procedure, Manipulation, and Measures

The experiment used a 3 (primary achievement goal) × 2 (applicant gender) between-subjects design. We conducted an a priori power analysis (G*Power) to estimate the sample size needed to detect a small effect ($f^2 = 0.01$) with this design (represented by two dichotomous predictors for primary achievement goal, one dichotomous predictor for applicant gender, and two interaction terms) with 80% power, $\alpha = .05$ (two-tailed). The required sample size was 1,289 participants, and we added 10% as a buffer to yield a target sample size of 1,418. Participants were again recruited using CloudResearch's MTurk Toolkit and compensated $0.25. We slightly exceeded our target sample size, collecting data from $N = 1{,}466$ participants based in the United States (mastery-approach goal $n = 524$, performance-approach goal $n = 500$, performance-avoidance goal $n = 442$). The sample was 41.1% male, 58.0% female, 0.9% other/unspecified; $M_{age} = 38.49$ years ($SD = 12.49$; range = 18–79; 72.9% Caucasian/White, 9.4% Black/African-American, 8.3% Asian/Pacific Islander, 6.1% Hispanic/Latinx, 1.0% Native American/American Indian, and 2.3% other. In response to the question "Have you ever been in a position where you interviewed job candidates for hiring purposes?," 56.7% answered "Yes."

The procedure (including instructions), achievement goal manipulation, and outcome measures were the same as those used in Experiments 1 and 2, with the exceptions of applicant names (varied between-subjects) and occupation (consistent across participants). Joseph (from Experiment 1) and Jessica (from Experiment 2) were used as the names of the male and female applicants. The occupation used in this experiment was gender-neutral, specifically, 49.9% male and 50.1% female according to the U.S. Bureau of Labor Statistics (2020).

The vast majority of participants correctly answered the instruction checks for applicant gender (99.5%) and primary work goal (98.3%). The internal consistencies for perceived competence and perceived warmth were $\alpha = .92$ and $\alpha = .93$, respectively.

Results

Overview of Analyses

The sequence of analyses was the same as that conducted for Experiments 1 and 2 (with analyses and hypotheses preregistered, as in Experiment 2). However, in this experiment, we performed stepwise analyses. Step 1 was the same as that conducted in Experiments 1 and 2, except that gender of applicant was included as a predictor. Step 2 added the two Primary Achievement Goal × Applicant Gender interactions as predictors. We tested the indirect effect of an applicant's primary achievement goal on interview likelihood via warmth and competence, as moderated by applicant gender (a direct effect and first stage moderated mediation model; Edwards & Lambert, 2007) using the percentile bootstrap-related procedure (described in Yzerbyt et al., 2018). In exploratory analyses, additional interactions with participant gender or prior interviewer experience were added to Step 2. Table 1 presents the descriptive statistics and intercorrelations among the measured variables, Table 2 presents the full results, and Figure 5 presents the main findings.

Achievement Goal and Gender to Interview Likelihood

In Step 1, as predicted, mastery-approach goal applicants ($M = 7.53$, $SD = 1.95$) were more likely to be invited for an interview than performance-approach goal applicants ($M = 6.85$, $SD = 2.32$; $\beta = .12$ [0.07, 0.18], $p < .001$) and performance-avoidance goal applicants ($M = 4.50$, $SD = 3.05$; $\beta = .55$ [0.49, 0.61], $p < .001$). Also as predicted, performance-approach goal applicants were more likely to be invited than performance-avoidance goal applicants ($\beta = .43$ [0.37, 0.48], $p < .001$).

Applicant gender was nonsignificant ($M_{female} = 6.46$, $SD_{female} = 2.78$, $M_{male} = 6.31$, $SD_{female} = 2.73$; $\beta = .03$ [−0.02, 0.07], $p = .265$) and, in Step 2, none of the Primary Achievement Goal × Applicant Gender interactions were significant ($ps \geq .386$).

Achievement Goal and Gender to Perceived Competence

In Step 1, mastery-approach goal applicants ($M = 7.14$, $SD = 1.50$) were perceived as less competent than performance-approach goal applicants ($M = 7.38$, $SD = 1.39$; $\beta = -.06$ [−0.12, −0.01], $p = .028$). We did not predict this difference, but the pattern of means is the same as that observed in Experiments 1 and 2; it is likely that this experiment simply had greater statistical power, enabling the detection of this small difference). As predicted, mastery-approach goal applicants were higher in perceived competence than performance-avoidance goal applicants ($M = 5.42$, $SD = 2.20$; $\beta = .45$ [0.39, 0.51], $p < .001$), and performance-approach goal applicants were higher in perceived competence than performance-avoidance goal applicants ($\beta = .51$ [0.46, 0.57], $p < .001$).

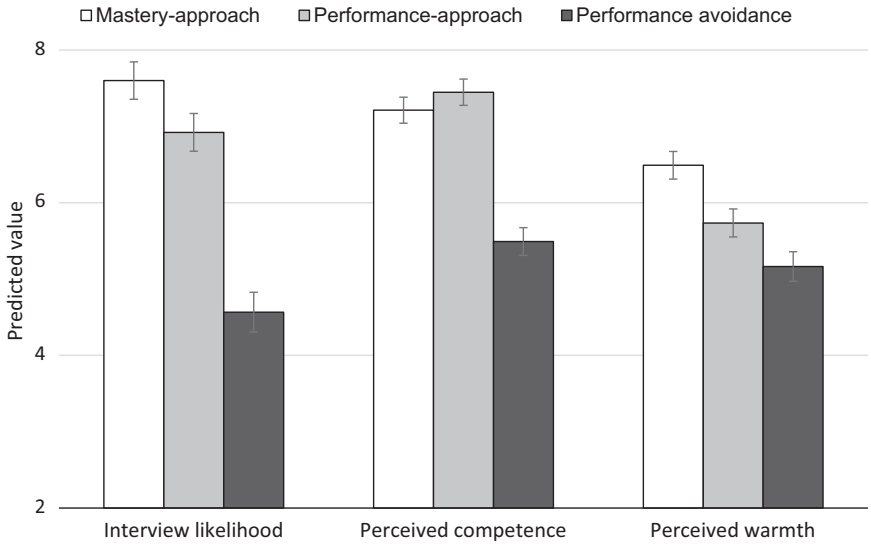
Applicant gender was nonsignificant ($M_{female} = 6.78$, $SD_{female} = 1.94$; $M_{male} = 6.63$, $SD_{male} = 1.87$; $\beta = .04$ [−0.01, 0.08], $p = .117$) and, in Step 2, none of the Primary Achievement Goal × Applicant Gender interactions were significant ($ps \geq .132$).

Achievement Goal and Gender to Perceived Warmth

In Step 1, as predicted, mastery-approach goal applicants ($M = 6.41$, $SD = 1.60$) were higher in perceived warmth than performance-approach

Figure 5

Experiment 3: Predicted Value of Interview Likelihood, Perceived Competence, and Perceived Warmth as a Function of Primary Achievement Goal



Note. Errors bars represent 95% CI. CI = confidence interval.

goal applicants ($M = 5.65$, $SD = 1.90$; $\beta = .20$ [0.14, 0.26], $p < .001$) and performance-avoidance goal applicants ($M = 5.08$, $SD = 1.94$; $\beta = .35$ [0.29, 0.41], $p < .001$). We predicted that performance-approach goal applicants would either be higher than performance-avoidance goal applicants in perceived warmth (consistent with Experiment 2) or the same (consistent with Experiment 1). We found that performance-approach goal applicants were indeed higher than performance-avoidance goal applicants ($\beta = .15$ [0.09, 0.21], $p < .001$).

Applicant gender was nonsignificant ($M_{female} = 5.83$, $SD_{female} = 1.90$; $M_{male} = 5.67$, $SD_{male} = 1.88$; $\beta = .04$ [−0.01, 0.09], $p = .085$) and, in Step 2, none of the Primary Achievement Goal × Applicant Gender interactions were significant ($ps \geq .734$).

Mediation via Perceived Competence and Warmth

As predicted, interview likelihood was simultaneously predicted by perceived competence ($\beta = .52$ [0.47, 0.56], $p < .001$) and perceived warmth ($\beta = .29$ [0.24, 0.33], $p < .001$). Most of the mediational hypotheses were supported in the bootstrap analyses (see Figure 6 for path models). The mastery-approach goal versus performance-approach goal effect on interview likelihood was mediated by perceived competence (indirect effect = −0.03 [−0.06, −0.01], $p = .011$) and perceived warmth (indirect effect = 0.06 [0.04, 0.08], $p < .001$); this former result was not hypothesized. The mastery-approach goal versus performance-avoidance goal effect on interview likelihood was mediated by perceived competence (indirect effect = 0.23 [0.19, 0.27], $p < .001$) and perceived warmth (indirect effect = 0.10 [0.08, 0.13], $p < .001$). The performance-approach goal versus performance-avoidance goal effect on interview likelihood was mediated by perceived competence (indirect effect = 0.27 [0.22, 0.31], $p < .001$) and perceived warmth (indirect effect = 0.04 [0.02, 0.06], $p < .001$). None of the moderated mediator variable interactions were significant ($ps \geq .161$).

Ancillary Analyses

None of the participant gender two- or three-way moderation analyses yielded significant effects. The prior interviewer experience moderation analyses yielded a few significant two-way interactions but no significant three-way interactions (see Table S3 in the online supplemental materials for details). None of the significant two-way interactions showed the same simple effects observed in Experiment 1 (and there were no significant interactions in Experiment 2).

Discussion

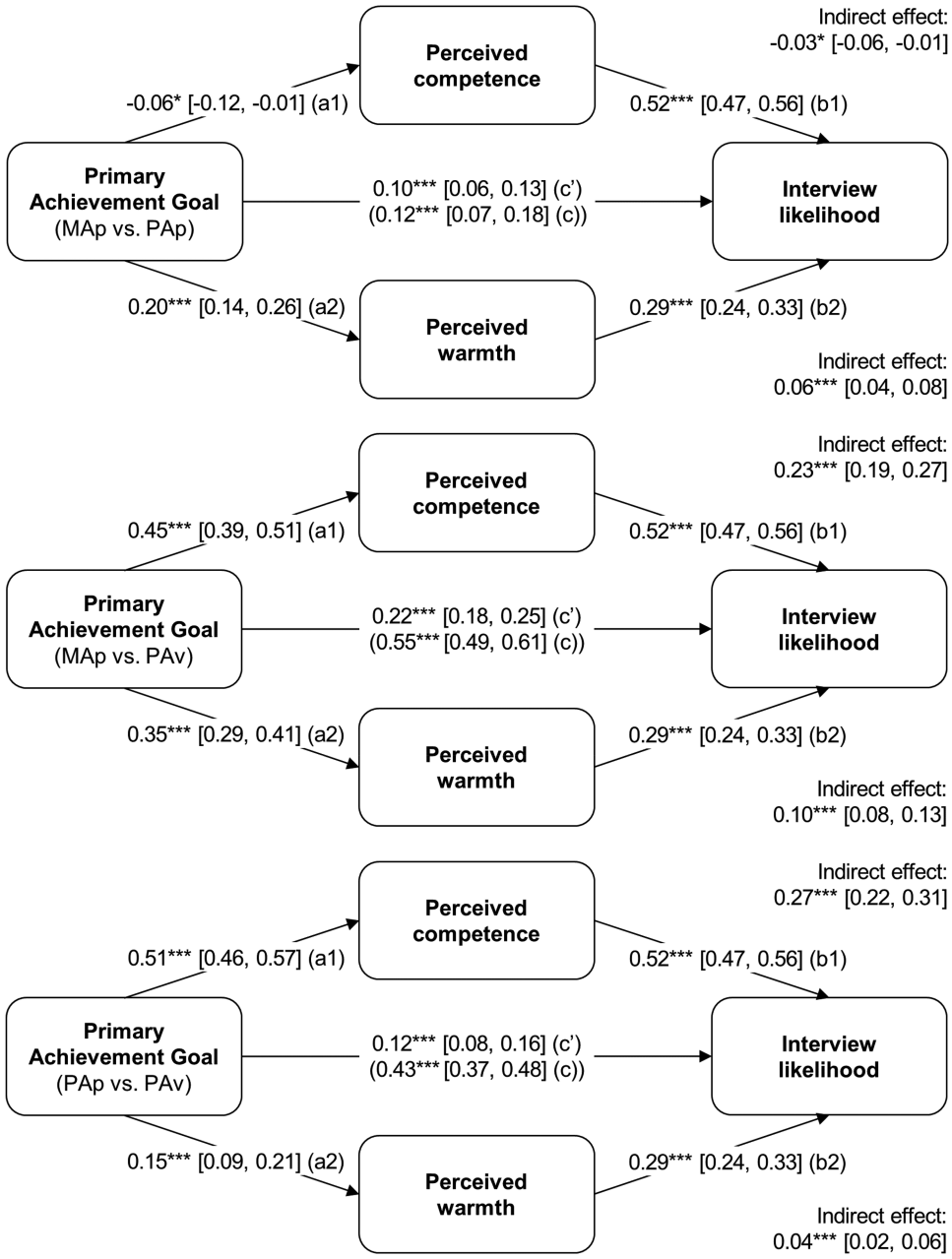
In sum, the results of Experiment 3 supported all of the primary achievement goal hypotheses except one: A mastery-approach goal applicant was perceived as (slightly) less competent than a performance-approach goal applicant. For the effect of performance-approach versus performance-avoidance goals on warmth and mediation by warmth, the patterns were the same as those observed in Experiment 2: Performance-approach goal applicants were perceived as more warm than performance-avoidance goal participants, and perceived warmth mediated the effect of performance-approach versus performance-avoidance goals on interview likelihood. This pattern did not vary by applicant gender and, indeed, no main or interactive effects of applicant gender were observed for perceived competence, perceived warmth, nor interview likelihood.

General Discussion

The three experiments of the present research yielded clear and highly consistent results; all findings summarized below were observed in all three experiments, unless otherwise noted. First, a job applicant's achievement goal affected whether participants were willing to grant that applicant an interview. Specifically, applicants reporting a mastery-approach goal were more likely to be granted

Figure 6

Experiment 3: Individual Path Models Testing the Effect of the Primary Achievement Goal on Interview Likelihood via Perceived Competence and Warmth



Note. The total effect is given in parentheses. MAp = mastery-approach; PAp = performance-approach; PAv = performance-avoidance. Solid back lines represent significant effects ($p < .05$), whereas dashed gray lines represent nonsignificant effects.

* $p < .05$. *** $p < .001$.

an interview than those reporting either a performance-approach or performance-avoidance goal, and those reporting a performance-approach goal were more likely to be granted an interview than those reporting a performance-avoidance goal. Second, the applicant's achievement goal also influenced participants' basic social impressions of the applicant. Specifically, those reporting a mastery-approach goal were perceived as equally competent (descriptively, in two experiments) and more warm than those reporting a performance-approach goal; those reporting a mastery-approach goal were perceived as both more competent and more warm than those reporting a performance-avoidance goal; and applicants reporting a performance-approach goal were

perceived as more competent and more warm (in two experiments) than those reporting a performance-avoidance goal. Third, participants' social impressions of the applicant predicted their likelihood of granting them an interview. Specifically, perceived competence and perceived warmth were simultaneous positive predictors of interview likelihood. Fourth, the influence of the applicant's achievement goal on interview likelihood was mediated by perceptions of competence and warmth. Specifically, the effect of a mastery-approach versus performance-approach goal was not mediated by perceived competence (in two experiments), but was mediated by perceived warmth; the effect of a mastery-approach versus performance-avoidance goal was mediated by perceived competence and perceived warmth; and the effect of a performance-approach goal versus performance-avoidance goal was mediated by perceived competence and perceived warmth (in two experiments). These results were observed with three different occupations, for male and female applicants, for male and female participants, and for those with and without prior interviewer experience.

Thus, we found clear evidence that mastery-approach goals are viewed as best, performance-avoidance goals as worst, and performance-approach goals in the middle with regard to applicant evaluation. These patterns map directly onto the nomological networks of the three goals, as documented in meta-analyses and systematic narrative reviews in the achievement goal literature—mastery-approach goals predict the most positive outcomes, performance-avoidance goals predict the most negative outcomes, and performance-approach goals predict a mix of positive and negative outcomes (Hulleman et al., 2010; Payne et al., 2007; Van Yperen & Orehek, 2013). This mapping suggests that individuals possess accurate metamotivational knowledge regarding which goals are best for employees to adopt and pursue in the workplace. The results for perceived competence and warmth provided additional information and clarity regarding the basic impression formation processes responsible for the interview likelihood findings.

Conceptual Contributions and Future Directions

In documenting metamotivational accuracy regarding different achievement goals, our findings contribute to an emerging literature that has shown accuracy regarding other important motivational distinctions such as promotion versus prevention focus (Scholer & Miele, 2016), high versus low construal level (MacGregor et al., 2017), intrinsic versus extrinsic motivation (Murayama et al., 2016), and autonomous versus controlled striving (Yu et al., 2023). Importantly, accuracy is not always found in metamotivational research (see, e.g., Kuratomi et al., 2023; Murayama et al., 2016), and may not be found in all investigations of achievement goals. In our work, we found accuracy in participants' understanding of the overall beneficial or detrimental nature of achievement goals, but this does not necessarily mean that individuals are accurate in their understanding of specific achievement goal-outcome links. For example, performance attainment and intrinsic motivation are two "gold standard" outcomes in achievement settings (Korn & Elliot, 2016, p. 4), and it is possible that people have accurate metamotivational knowledge regarding one of these outcomes (e.g., that performance-approach goals positively predict performance attainment) but not the other (e.g., they may think performance-approach goals undermine intrinsic motivation, whereas meta-analyses show a positive relation (Hulleman et al., 2010; Rawsthorne & Elliot, 1999). Inaccuracy could also appear in the form of a lack of understanding of the context-specific nature of certain achievement goal-outcome relations. For example, although meta-analyses show that mastery-approach goals are, overall, positive predictors of performance attainment (Payne et al., 2007; Van Yperen et al., 2014), many studies have shown that this relation is not present in certain instances (e.g., for performance on normatively graded college exams; Elliot & Church, 1997; Senko & Miles, 2008); an outstanding question is whether individuals are knowledgeable of such nuance. In short, these examples highlight the need for additional, more fine-grained and contextually sensitive, investigations of achievement goal metamotivation that build on the present, foundational findings.[3] Such research would be valuable, regardless of whether it revealed metamotivational accuracy or inaccuracy.

In addition to advancing the metamotivation literature through a focus on achievement goals, the present research is also novel in focusing on others' motivation rather than one's own motivation. The only other metatmotivation research focused on others is by Jansen et al. (2022) who used scenario studies to show that participants could accurately match employees' promotion versus prevention orientations to the eagerness versus vigilance demands of tasks (respectively). Our studies document a different kind of other-based accuracy in showing that participants could accurately evaluate a job applicants' potential based on the primary achievement goal that they report. This raises the question of whether individuals have accurate metamotivational knowledge regarding their own, as well as others' achievement goals; answering this question is a clear priority for subsequent research.

Still another way in which our work is quite unique is that it focused on the work domain (like Jansen et al., 2022). Most research to date has been acontextual, although a few studies have focused on the academic domain (MacGregor et al., 2017; Yu et al., 2023). Here too the question may be raised as to whether the same relations observed herein would be observed in other contexts such as the sport domain; research is needed to answer this question as well.

A final noteworthy characteristic of our work is that it extends the predominant, relatively narrow focus on motivation and outcomes for specific tasks (e.g., proofreading; Scholer & Miele, 2016) to include a broader conceptual focus on motivation and outcomes for an overall role (i.e., employee; see also Yu et al., 2023). Much like people believe that a certain type of regulatory focus for a task will lead individuals to exhibit optimal performance on that task (Scholer & Miele, 2016), our research shows that people believe that certain types of achievement goals for a job will lead employees to exhibit optimal levels of competence and warmth that will lead them to be an optimal employee (i.e., a person worthy of interviewing). This broader scope expands the reach of the metamotivational

[3] It may be tempting to interpret the findings from our studies acontextually, such as advocating that applicants reporting performance-avoidance goals in any context are to be avoided as potential employees. We view this interpretation as oversimplistic and problematic; taking context into consideration is critical in the personnel selection process. For example, individuals from a low (relative to high) socioeconomic background are more likely to report performance-avoidance goals (Jury et al., 2015), and rejecting such individuals without factoring in the contextual impetus for their avoidance goal pursuit would be shortsighted and, more broadly and distally, could sustain or enhance inequality. More generally, we believe additional research and understanding are necessary before applied recommendations can be offered with confidence.

literature to include more integrated, higher level conceptions of both task foci (i.e., roles, which represent tasks in aggregate) and outcomes (e.g., person-based attributes, which represent overall performance and citizenship over time and situations).

In future research, it would also be interesting to study intraindividual variation in metamotivational knowledge (for an example regarding construal level, see Nguyen et al., 2023), as well as the downstream implications of such knowledge (e.g., regarding regulatory focus, see Ross et al., 2023). For example, accurate knowledge of the benefits of one's own mastery-approach goals may enable one to persist on tasks when failure is encountered. On the other hand, an erroneous belief that performance-avoidance goals are beneficial for performance attainment may make one more likely to adopt and pursue these goals, to one's (ironic) detriment. Another important question concerns the development (and maintenance) of metamotivational beliefs about achievement goal-outcome links. This is an often discussed (Miele et al., 2020; Reeves et al., 2023; Scholer & Miele, 2016), but not yet studied topic in the metamotivational literature in general and it clearly warrants empirical attention. Furthermore, it would be helpful to assess and study the role of variables such as perceived modesty and self-aggrandizement; Mast et al., 2011), which served as the basis for several hypotheses herein but were not studied directly. Finally, it would be helpful to investigate more explicit variants of metamotivational knowledge in future work, such as having participants self-generate predictions regarding the implications of pursuing different achievement goals in the workplace. The approach that we used in the present work has the advantage of being able to show metamotivational knowledge even if participants have little explicit access to such knowledge, but subsequent work using a more overt, guided approach would also be valuable in that it would reveal whether this metamotivational knowledge is at least partially accessible (and, therefore, directly reportable).

Methodological Strengths and Limitations

Our empirical work has several methodological strengths. First, we manipulated achievement goals and examined mediation via social impressions. Manipulating—rather than measuring—achievement goals have become uncommon in the achievement motivation literature (Urdan & Kaplan, 2020), and our work highlights its continued utility. In addition, the examination of mediational processes addresses an acknowledged need in the metamotivational literature (Miele et al., 2020). Second, we used samples that were highly powered to detect the hypothesized effects. This greatly enhances the likelihood of our findings being robust when directly or conceptually replicated. Third, Experiments 2 and 3 were preregistered and we followed open science principles in conducting and reporting our research. This provides ideal transparency that also enhances the likelihood of our results proving robust. Fourth, we used adult participants on an online platform rather than university undergraduates, and in each experiment over half of the participants had prior interviewer experience. Testing for differences between those with and without interviewer experience yielded no robust moderation.

Our empirical work also has some methodological limitations. First, although our experiments had strong construct, content, and face validity, they did not have strong ecological validity. In keeping with the vast majority of metamotivation research (e.g., Nguyen et al., 2019; Scholer & Miele, 2016; Yu et al., 2023), our studies used a scenario-based methodology; specifically, we utilized a hiring simulation paradigm rather than an actual hiring process, and we tested prior interviewing experience as a moderator rather than using actual hiring personnel. Research is needed to examine how well the findings from our tightly controlled experiments generalize to real-world personnel selection processes. For example, one outstanding question is the degree to which individuals would self-report performance-approach and performance-avoidance goals in an actual high-stakes job application situation. Another outstanding question is whether job candidates selected on the basis of reporting mastery-approach goals indeed end up being optimal employees; documenting this empirically would provide additional, unequivocal evidence of metamotivational accuracy. Second, the information that we provided to participants was limited regarding the number of achievement goals (i.e., one primary goal) and other relevant information sometimes used in the initial applicant screening process (e.g., more extensive demographic and experience information, information on cognitive ability, or job-specific skills). Research is needed to test whether information on achievement goals continues to have a strong influence on social impressions and interview likelihood judgments when pitted against these other relevant factors. In addition, subsequent work would do well to include a control condition to ground the achievement goal conditions.

Third, the number of jobs that we focused on in our experiments was limited to three—software engineer, librarian, and insurance sales agent. Although our experiments yielded highly consistent results across these occupations, the use of broader sampling, perhaps through a factorial survey design (Auspurg & Hinz, 2015), would be welcomed in future work. Our selection of the aforementioned jobs was done on the basis of job-gender fit (male dominant, female dominant, and neutral, respectively); one idea for future work is to select the jobs on the basis of achievement goal-job requirement fit. This would allow for a test of interesting possibilities such as the following: Performance-approach goals might be viewed as highly beneficial for jobs that primarily require competence (e.g., accountant), whereas these goals might be viewed as less beneficial for jobs that primarily require warmth (e.g., restaurant host or hostess). Fourth, although our samples had a fair amount of ethnic diversity, the experiments were conducted with participants exclusively from the United States. Researchers have pointed to the need to expand the breadth of empirical work to non-White, Educated, Industrialized, Rich, Democratic (Henrich et al., 2010) samples, and we encourage a test of cross-cultural robustness, accordingly. A test in East Asian countries may be particularly enlightening regarding the performance-approach versus performance-avoidance goal influence on perceived warmth, as performance-avoidance goals are strongly linked to modesty in such cultures (Heine, 2015), and may therefore elicit more positive evaluations than we observed. Finally, the mediation documented herein included a correlational component in the link between the mediators and the outcome variable. The experimental causal chain approach (Spencer et al., 2005) is needed in subsequent work to address this limitation.

Closing Statement

Our research establishes connections between three vibrant research literatures that have heretofore existed in near complete isolation: the metamotivation literature, the achievement goal literature, and the basic social impression literature. We think the integration of

these literatures—two well established and prominent (achievement goal, basic social impression) and one emerging and highly promising (metamotivation)—will not just be additive but will be multiplicative (i.e., more than the sum of its parts) in generating new conceptual insights, new empirical ideas, and, eventually, new practical applications. We encourage more researchers to join us in studying this promising nexus.

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