

**Rejected but Not Dejected: The Effects of Gratitude and Ingroup Membership on
Auditors' Future Advice-Giving when Past Advice is Dismissed**

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ABSTRACT

Auditors are encouraged to share advice to improve audit quality, but it is inevitable that sometimes this advice will be ignored. Previous research has shown that advice rejection has adverse effects. This paper examines how advice rejection influences auditor's intentions to provide advice in the future, with a focus on identifying mitigating factors that reduce the impact of rejection. We predict and find in an experiment that expressions of gratitude will reduce the effects of advice rejection, but only when the advisor belongs to the same ingroup as the advisee. Our results provide valuable information for researchers about boundary conditions on the effect of gratitude in the advice domain, and suggest that auditors could emphasize expressions of gratitude to encourage advice sharing amongst team members with a closer group bond.

Keywords: advice-giving; rejection; gratitude; ingroup-outgroup relations.

I. INTRODUCTION

Auditors often provide and receive informal advice (Gibbins and Emby 1985; Danos, Eichenseher, and Holt 1989; Kadous, Leiby and Peecher 2013), which involves sharing recommendations, information, and unique perspectives on uncertain issues (Dalal and Bonaccio 2010). Audit firms encourage this behavior, to improve professional judgment and safeguard professional skepticism (Zeidman 2010; Ranzilla et al. 2011). Recently, previous research examining how auditors use advice has established how important contextual, interpersonal cues like social bond (Kadous et al. 2013) and status (Knechel and Leiby 2016) influence how auditors utilize and provide advice. This paper extends this line of research by examining how expressions of gratitude can influence auditors' intentions to provide advice, specifically in a setting in which auditors' advice has been previously rejected, and by establishing an important interpersonal boundary condition (i.e., advisee group membership) on its effectiveness.

In general, it is common for an advisee to reject advice (Blunden, Logg, Brooks, John, and Gino 2019). Thus, while advice sharing is encouraged by auditing firms, it is inevitable that some advice will be ignored – auditors closer to the issue at hand may have superior knowledge of pertinent facts, and ultimately have final decision-making authority when using their professional judgments. This makes it especially important to understand how auditors react to having their advice rejected. We draw on previous theory that argues advice rejection creates an ego threat, lowering the advisor's perceived social worth and his or her perceptions of the advisee (Blunden et al. 2019; Belkin and Kong 2018). This makes the advisor less likely to provide advice in the future. This effect could significantly impact informal information sharing across audit teams, ultimately reducing audit effectiveness.

We extend previous research by examining both a mitigating factor to the effects of advice rejection and the potential limits of such a factor. Previous research finds that advisee expressions of gratitude can heighten an advisor's perceived social worth and the advisor's perceptions of the advisee, and can lead to higher intentions to provide advice in the future (Grant and Gino 2010) even when previous advice is rejected (Belkin and Kong 2018). We further propose that this effect will occur within the auditing domain, but establish an important boundary condition: gratitude from an advisee will have the largest effect when it is delivered by an ingroup member and a minimal effect when delivered by an outgroup member. Our proposal draws on research on intergroup relations and social identity theory (see Hogg 2013 for a review) to argue that advice rejection likely influences advisor evaluations of the group(s) to which s/he and the advisee belong to, not just advisor evaluations of the self and others as individuals.

Individuals more positively evaluate ingroup than outgroup members (Dovidio, Gaertner, and Validzic 1998; Kane, Argote, and Levine 2005) and strive to maintain perceived superiority of their ingroups (Correll and Park 2005; Hogg 2013). When advice is rejected, gratitude from an ingroup (outgroup) advisee will likely (not) provide the advisor motivation to positively evaluate the advisee's group and (not) increase the advisor's sense of closeness to this ingroup (outgroup). Due to this higher sense of closeness, we predict that auditors' intentions to provide advice will be more influenced by gratitude when it is provided by an ingroup (vs. outgroup) advisee.

We examine our research question with an experiment, utilizing a 2 X 2 between-subjects design. In our experiment, participants are placed in a scenario where they have provided advice to another auditor. We hold constant the advice provided to ensure that advice quality is constant across participants, and always inform participants that their advice has been rejected by the advisee. All participants are told that they are working on a large, multi-location audit, and we

manipulate group membership between subjects by informing them that the advisee who rejected their advice is either from the same local team as them (ingroup) or a different local team (outgroup) working on the same overall client. This manipulation mirrors the working conditions of a group audit, where teams of auditors work together to obtain overall assurance over the financial statements, but naturally belong to different sub-groups (Downey and Bedard 2019; Sunderland and Trompeter 2017). We also manipulate gratitude – whether or not the advisee thanks the participant for providing advice, even though it is subsequently rejected in all cases. Our primary dependent variable is participant intentions to provide advice in the future. We also examine perceptions of social worth, closeness felt towards the advisee’s team, and the belief that the advisee will follow the future advice.

We focus on the group audit setting because information sharing and advice is critical to audit effectiveness in this domain, which naturally involves intergroup and interpersonal relationships (Downey and Bedard 2019; Sunderland and Trompeter 2017). While advice and relationships could also be important when examining advice between auditors of different ranks or between auditors and non-audit specialists, focusing on group audits provides a more direct test of our theory and limits knowledge or experience differences between advisor and advisee.

We find that advisors whose advice is rejected are more likely to provide advice again in the future when the advisee previously expresses gratitude, but only when the advisee and advisor are members of the same ingroup. That is, advisors who are of the same ingroup of the advisee and receive gratitude are more likely to provide subsequent advice than advisors who are of the same ingroup but do not receive gratitude or who are not in the same ingroup as the advisee. Further, this effect results from ingroup, gratitude-receiving advisors feeling the greatest sense of closeness to the advisee’s team and closeness leading to a greater belief the advisee will

follow future advice and in turn generating a higher likelihood of providing that advice.

Supplemental results show no effect of gratitude, as moderated by advisee group membership, on the quality of advice given. However, we generally find a main effect of group membership, whereby advisors provide higher quality advice (e.g., refer to accounting guidance more often or provide more facts or key facts in supporting their position) when they are of the same ingroup as the advisee versus not.

Our results are important for several reasons. First, we extend our understanding of how auditors share advice amongst each other. While audit firms encourage advice sharing behavior (Zeidman 2010), it is inevitable that some advice will be ignored. Our experiment shows how advice rejection might influence future behavior, while providing a relatively simple solution to the problem yet establishing an important boundary condition to that solution. Practitioners could use our findings to encourage advice sharing, perhaps through emphasizing gratitude in close group communications, while researchers could examine the effects of gratitude in other important domains or examine factors besides gratitude that could reduce the effects of rejection for auditors with less close interpersonal relationships.

Second, we advance the literature on advice giving more broadly. Other research has established the role and importance of gratitude within the advice sharing domain (Grant and Gino 2010; Belkin and Kong 2018), but our paper shows limits to its positive effects depending on advisee group membership. We find gratitude is most effective (indeed, only effective) when the advisor perceives the advisee as an ingroup member. We also extend prior research by showing that gratitude not only affects perceptions of the advisor and advisee but perceptions of the groups to which they belong as well. Future research can examine other ways ingroup versus outgroup membership can change the way individuals share advice or other limits of gratitude.

Finally, our results have important implications for group audits. We propose and find that auditors working on group audits will perceive themselves primarily as a member of their local team (i.e., their ingroup), with a relatively weaker bond to teams in other locations (i.e., their outgroup). Echoing concerns of bias against outgroup component auditors (Sunderland and Trompeter 2017), we find the positive effects of gratitude are diminished when an advisee from another component audit team is perceived as an outgroup (vs. ingroup) member. More broadly, we complement other group audit research that has established challenges in coordination and effective communication between teams (e.g., Downey and Bedard 2019; Downey and Westermann 2019). Further, as remote working becomes more commonplace in the professional world due to the COVID-19 pandemic, there may be significant shifts within audit firms where individuals work at various locations and feel more or less connected to specific teams within an audit group. Other research could build on our results and examine how differences in perceived group membership, whether working remote or not, alter other group audit outcomes.

The rest of the paper proceeds as follows. Section 2 outlines our underlying theory and hypotheses. Sections 3 and 4 describe our research design and results. Section 5 concludes.

II. THEORY AND HYPOTHESIS DEVELOPMENT

The role of advice in auditing

Danos et al. (1989, 91) describe knowledge as “the primary input factor in producing an audit” and as often shared or communicated within and across audit teams through consultation or advice.¹ Auditors often provide or receive advice while considering uncertain issues (Gibbins and Emby 1985; IAASB 2005; AICPA 2012), to share knowledge that may be lacking (Danos et al. 1989) or to increase the justification of the resulting judgment (Emby and Gibbins 1988;

¹ Knowledge sharing/transfer, through advice or other means (e.g., databases), is not unique to auditing but failures to achieve its potential pervade many organizations (Haas and Hansen 2007; Szulanski, Ringov, and Jensen 2016).

Kennedy, Kleinmuntz, and Peecher 1997; Trotman, Bauer, and Humphries 2015). We focus on informal advice, where there is no official documentation of advice provided or lines of authority between advisee and advisor. Audit advice is often informally delivered between colleagues (Danos et al. 1989; Kadous et al. 2013), making it a ubiquitous and important setting, and a lack of formal guidelines provides significant latitude for what advice is given and how it is followed.

Psychology theory provides a wealth of information about how advice is provided and taken (see, e.g., Dalal and Bonaccio 2010; MacGeorge, Feng, and Guntzviller 2016). In broad terms, this research has established that characteristics of the advisor, the advisee, and the advice itself can change reactions to advice. For example, the mood of the advisee alters how advice is followed (Gino and Schweitzer 2008) and advice that violates expectations can be more effective when delivering bad news (Fridman, Scherr, Glare and Higgins 2016). Other research within accounting focuses on how auditors provide or follow informal advice (Gibbins and Emby 1985; Kennedy et al. 1997; Kadous et al. 2013; Bauer, Hillison, Peecher, and Pomeroy 2020). Kadous et al. (2013) show that auditors react to contrary advice with a trust heuristic, where auditors rely more on advice provided by a trusted colleague with whom they have a closer social bond. Knechel and Leiby (2016) find that activating advisors' status motives influences the precision and contrariness of the advice they provide. These studies help researchers and practitioners understand how auditors react to advice and what influences the content of advice delivered between auditors, particularly with respect to situational factors of an interpersonal nature.

Our study extends previous audit research in two important ways. First, we focus on examining an auditor's intentions about providing advice. While it is important to understand how the content of advice varies based on situational factors, auditors are free to simply not provide advice at all. To our knowledge, only our study and Griffith, Kadous, and Proell (2020)

examine situational factors that could influence auditor's advice provision, as opposed to advice content or reactions to advice. Second, our study is the first in auditing to focus on a unique setting in which advice provided in a previous period has been rejected². Some advice will be ignored, especially in an informal setting, and this rejection could have a significant influence on future advisor behavior. Our theory and results indicate how two important situational and interpersonal factors influence the impact of advice rejection.

The effects of advice rejection and expressions of gratitude

Advice is fundamentally an interpersonal concept in which individuals share information with one goal being to reach a good or optimal decision (Bonaccio and Dalal 2006; Belkin and Kong 2018; Blunden et al. 2019). But, because advice is interpersonal, when it is rejected it can also produce interpersonal costs (Belkin and Kong 2018; Blunden et al. 2019). As most people hold a generally positive view of themselves (Hoorens 1995) and as advice is often given with a goal of improving decision making, advisors tend to believe their advice is good and they suffer ego threat when that advice is rejected (Blunden et al. 2019). As a result, advisors may begin to devalue both themselves and the advisee, which in turn makes advisors less likely to provide quality advice in the future (Belkin and Kong 2018; Blunden et al. 2019).

Recently, Blunden et al. (2019) test this idea, showing that advice rejection (versus acceptance) creates offense, lowers an advisors' perceived social worth, and increases social distance between the advisee and the advisor. These perceptions reduce willingness to provide advice in the future. Advisors are also less willing to provide advice in the future when advisees

² We note that advice rejection exists along a continuum – while we examine explicit rejection of advice, advice can also be underweighted or discounted rather than ignored. Other research within accounting (Estep 2021, Griffith, Kadous, and Proell 2020) has shown that this behavior can also change auditor actions. We examine the case of explicit rejection because it is a powerful test of our underlying theory. However, our results could apply to other cases of advice discounting, to the extent these examples produce a similar psychological reaction.

ask others for advice – another form of advice devaluation – because they believe their advice is unlikely to be followed (Blunden et al. 2019). Effects of advice rejection could be especially damaging within auditing, where complex problems require information to be shared (e.g., via advice and consultation) and team members often have significant expertise in specific domains (Gibbins and Emby 1985; Danos et al. 1989). If advice rejection harms social bonds and reduces perceptions of competence, it could impair future information sharing and audit effectiveness.

Given the negative consequences of advice rejection, research has also begun to focus on factors that could soften the blow of rejection and mitigate its negative impact. Blunden et al. (2019) show that expertise moderates the effects of advice rejection, where the effect of rejection is smaller when the advisor has lower domain expertise. Gratitude, defined as “a warm sense of appreciation for someone or something” (Belkin and Kong 2018, 182), can also soften the blow of rejection. In general, expressions of gratitude can increase acceptance of advice (de Hooge, Verlegh and Tzioti 2014) and encourage various forms of prosocial behavior by increasing advisors’ feelings of social worth (Grant and Gino 2010). In particular, Belkin and Kong (2018) show that expressions of gratitude boost (and effectively restore) advisors’ feelings of social worth that are otherwise reduced due to advice rejection, in turn increasing advisors’ provision of honest advice in future periods when prior advice has been rejected. Building on this literature, our research examines a boundary condition of the effects of gratitude on an advisor’s future behavior that has not yet been explored in the psychology literature and that represents an important aspect of the auditing setting – group membership of the advisor and advisee.

The moderating role of group membership on the effects of gratitude for advice

Research within psychology has examined how group membership shapes cognitions and decisions (Hogg 2013). Individuals feel more positively about members of their own ingroup and

treat them more favorably than members of an outgroup (Dovidio et al. 1998; Kane et al. 2005; Hogg 2013). As such, individuals are more likely to favor ingroup members when allocating resources or providing help (Brewer 1999) and to share information with ingroup members (Kane et al. 2005). Moreover, because individuals primarily derive esteem and positive self-perceptions from their ingroups, they strive to maintain the perceived superiority of these groups relative to other (out)groups (Tajfel 1978; Correll and Park 2005; Hogg 2013), potentially by any means necessary including deriding outgroups (Galinsky and Ku 2004).

We extend prior literature on advice by arguing that an expression of gratitude from ingroup advisees can have benefits beyond improving evaluations of the self (i.e., the advisor) or others (i.e., the advisee). Gratitude can also help maintain or restore positive evaluations of the ingroup and, in doing so, increase the closeness felt (e.g., shared identity) between advisors and their ingroup (including the advisee). When advice is rejected by an ingroup advisee, the advisor should be motivated to maintain a positive view of their ingroup, if possible. The advisee's expression of gratitude provides a cue that can support this positive evaluation and strengthens or maintains the advisor's identity with the ingroup and sense of closeness to it and its members. This idea is consistent with prior research which establishes that individuals seek to bolster their association with a positive ingroup when faced with an ego threat (Cialdini and Richardson 1980). As the identity or closeness to the group strengthens, the advisor is more likely to believe future advice will be followed and is more likely to provide advice again in the future.

When advice is rejected by an outgroup advisee, the advisor is unlikely to be motivated to alter their evaluation of the outgroup, even if gratitude still restores the advisor's perceived social worth and evaluation of the advisee. Related research examining the effects and mechanisms of gratitude (McCullough, Kimeldorf and Cohen 2008; Algoe, Fredrickson and Gable 2013; Stellar

et al 2017) has established that the effects of gratitude are deeply related to group membership – individuals express and react to gratitude largely based on the expectations of future interactions within a given group or relationship. When gratitude is expressed by a member of an outgroup, this important theoretical underpinning is removed, and we would expect that expressions of gratitude should have little influence on how advisors view the outgroup or how close they feel to it. As such, advisors should be less likely to act on gratitude from an outgroup advisee, mitigating the effectiveness of gratitude within our experimental setting.³

In total, we expect that when an advisee expresses gratitude for advice despite rejecting it, the advisor likely feels closer to the advisee and advisee’s group if s/he is an ingroup member but likely does not feel any closer to the advisee or advisee’s group if s/he is an outgroup member. We propose that this will result in gratitude having a stronger effect on advisors’ willingness to provide advice when it is delivered by an ingroup advisee, and a generally lower willingness to provide advice when the advisee is from an outgroup. In hypothesis form:

H1: Auditors whose advice is rejected will be relatively more willing to provide advice in the future when they do (versus do not) receive gratitude for their past advice from an ingroup advisee, but they will be relatively less willing to provide advice in the future to an outgroup advisee regardless of gratitude.

We note that this hypothesis could be especially important within the group audit setting. Research on group audits has established that there are challenges in coordination between teams and in effective communication (see, e.g., Downey and Bedard 2019; Sunderland and Trompeter 2017), making it especially important to understand how information is shared across teams through advice and consultation (Gibbins and Emby 1985). Auditors working on group audits likely have different perceptions about group membership, seeing themselves primarily as a

³ In a similar vein, prior research has shown that persuasive messages are less likely to result in attitude change or cognitive responses when they come from outgroup versus ingroup members (Mackie, Worth, and Asuncion 1990; McGarty, Haslam, Hutchinson, and Turner 1994).

member of their local team, with a relatively weaker bond to teams in other locations. This difference in group membership could change the effectiveness of gratitude when advice is rejected. Similar effects could also occur in other important audit settings, such as when auditors interact with outside specialists or members of other specialized teams (e.g., IT auditors).

III. METHOD

Participants and Design

Participants are 207 Masters of Accounting student participants with extensive intern experience who we randomly assign to four conditions in a 2 x 2 between-participants experiment.⁴ Specifically, via multiple internships, our participants have a mean of 15.4 months of accounting or finance experience at the staff level – primarily in audit and/or tax roles – and a mean of 7.2 months of audit experience in particular.⁵ Further, all students were in the process of completing their third audit course. Therefore, our participants have sufficient knowledge to complete the task.⁶ Student participants are appropriate when they have the requisite knowledge to complete a task and when the theory and task under study do not rely on expertise or incentives specific to the institutional setting (Peecher and Solomon 2001; Libby, Bloomfield, and Nelson 2002). As already noted, our participants have sufficient audit knowledge and experience, at levels similar to or above staff auditors, and our theory does not suggest that the expertise or incentives encountered by more senior auditors would interact with our independent variables of interest. Moreover, the experimental task is suitable for all audit levels, including

⁴ We obtained ethics approval from each authors' respective university research board and all participants consented to participate, per ethics board requirements.

⁵ Fifteen participants reported having only finance experience, and no accounting experience. Our results are unchanged if we exclude these participants from our analysis. Two participants did not provide a response to the months of experience measure. Of the 133 participants with any audit experience at all, mean audit experience is 11.3 months. Neither audit nor overall work experience differs significantly among conditions (all $p > 0.34$).

⁶ Results reported in the paper are substantially and qualitatively unchanged even after including only those 149 participants who have some audit intern experience or who will start full-time employment in an audit role.

staff, because it asks participants to provide informal advice about areas of common knowledge within the financial statements and audits (accounts receivable and inventory).

We manipulate gratitude from an advisee as present or absent and the advisee's group membership as ingroup or outgroup (advisor and advisee are members of the same group or not). Participants are asked to assume the role of a staff auditor on a large group audit where they are a member of one of two local, component audit teams that both report to a principal audit team. As described in detail later, participants are also asked for advice twice by two different advisees who are on the same local team as each other (but not necessarily the advisor participant) and indicate their willingness to provide advice and their actual advice for the second request. Participants took an average of 19.1 minutes to complete the experiment.

Procedures and Variables

Participants are first informed of their role on the group audit and we manipulate whether they are told that their local audit team is nicknamed the Red team or the Blue team. Participants are also informed that they have expertise in both accounts receivable (AR) and inventory and that they have been asked for informal advice by another staff auditor on the Red team. Because we hold constant the advisee's audit team as Red, our manipulation makes the advisee a member of the participants' ingroup (outgroup) when a participant is randomly assigned to the Red team (Blue team). To reinforce group membership, throughout the case we refer to "your Red Team" ("the other Red Team") for participants in the Red team (Blue team) condition.

In this first stage, participants do not give advice. Rather, they all read the same facts about the allowance for doubtful accounts (AFDA) in AR, are all made aware of the same two factors that suggest higher credit risk of AR customers, and all read the same email sent to the

advisee.⁷ The email indicates their concern about AR (and the two factors) and their suggestion for the team to dig deeper, find more evidence, and possibly push management to revise their AFDA estimate or provide more disclosure. We hold constant the advice provided to ensure that advice quality is constant across participants and that the same advice is rejected by the advisee in all conditions. After reading about the advice they provided, all participants receive a reply email that contains our gratitude manipulation. When gratitude is present (grateful), participants receive a message stating “Thank you for your input on this issue! I know you took some time out of your schedule to look over the facts, and I really appreciate it.” When gratitude is absent (ungrateful), participants receive a message that simply states “Okay, got it.” Subsequently, all participants are informed that when their client issued their quarterly financial statements a few days later, the AFDA was not changed from its position prior to their advice causing them to wonder if their advice was even considered. This final piece of information suggests to all participants that their advice was rejected.

Next, participants are told that it is a few months later and that they have again been asked for informal advice, from another member of the Red team. In this second stage, participants do indeed give advice. First, participants are informed that their advisee would like advice about a potential reserve for obsolete inventory. Without providing additional facts about the situation, we ask participants their likelihood of providing advice, rated on an 11-point scale from “very low” (1) to “very high” (11) and how much time they expect to spend reviewing facts and providing a recommendation, rated on an 11-point scale from “very little time” (1) to “a

⁷ The case is adapted from Peecher, Piercey, Rich, and Tubbs (2010) and Kadous et al. (2013) to focus on an allowance rate for AR rather than a more complex discount rate for securitized receivables.

great deal of time” (11). This former measure serves as our primary dependent variable; it is a direct measure of their willingness to provide advice, unaffected by any specific evidence.⁸

Subsequently, we ask participants to recall the first advisee and to respond to six and two questions from Grant and Gino (2010) and Blunden et al. (2019), respectively, each rated on a 7-point scale from “strongly disagree” (1) to “strongly agree” (7). The first (last) three questions assess social worth (self-efficacy) by asking participants to indicate the extent they felt valued by, appreciated by, and made a positive difference for the advisee (capable, competent, and able to help when providing advice). The other two questions assess participants’ opinions of the advisee by asking them to indicate the extent they felt the advisee was likeable and competent. Next, we ask participants to recall the second advisee and to respond to two questions from Blunden et al. (2019) about their belief the advisee will follow their advice and their confidence the advisee will follow their suggestion, and one question about their surprise at being asked for advice, each rated on a 7-point scale from “strongly disagree” (1) to “strongly agree” (7).

At this point, we provided participants with detailed facts about the inventory issue and asked them to indicate any advice they would provide via an open-ended question.⁹ We also asked them how likely they were to 1) ask for additional information before providing advice, and suggest the team push management 2) for more evidence and 3) to revise their estimate; each question was rated on an 11-point scale from “not at all likely” (1) to “extremely likely” (11). We then ask participants to indicate the sense of closeness between them and each of the Red team and the Blue team by selecting one of seven images of two increasingly overlapping circles

⁸ We also considered having participants provide advice at this stage, and using the content of that advice as our dependent variable. This approach could be influenced by differences in our participant’s ability to provide quality advice, making it more difficult to test the effects of our independent variables. Our measure of behavioral intentions should be less influenced by this factor, and provide a more powerful test of our underlying theoretical construct.

⁹ The case is adapted from Griffith, Hammersley, Kadous, and Young (2015) to simplify and focus on the saleability of an old inventory product rather than revenue projections of products in a more complex goodwill impairment test.

(self and each team) via the Inclusion of Other in the Self (IOS) scale developed by Aron, Aron, and Smollan (1992) and adapted to audit settings by Bauer (2015). Finally, we ask participants attention check questions related to the manipulated conditions and demographic questions.

IV. RESULTS

Preliminary Tests

We test our gratitude manipulation by asking participants the extent that they agreed they received a message indicating gratitude for their help in the first stage. Participant agreement was significantly higher when gratitude was given versus not ($M = 4.75$ vs. $M = 3.88$; $F_{200,1} = 161.13$, $p < 0.01$) and no other main or interaction effects are significant (both $p > 0.42$), indicating a successful manipulation. We test our group membership manipulation in several ways. First, we asked participants to identify the team they (the two advisees) belonged to; 99 (96) percent of participants correctly identified their (the advisee) team. Next, we use the IOS scales and exclude the eight participants who incorrectly responded to either previous question; we find a significant main effect of group membership on measures of both the Blue team ($F_{195,1} = 448.62$, $p < 0.01$) and Red team ($F_{195,1} = 34.90$, $p < 0.01$). Specifically, participants assigned to the Blue team rated their closeness to the Blue team ($M = 5.61$), their ingroup, higher than those assigned to the Red team ($M = 1.86$) and they rated their closeness to the Red team ($M = 3.31$), their outgroup, lower than those assigned to the Red team ($M = 4.32$). These results indicate a successful manipulation.

In addition, we find no other significant main or interaction effects for the Blue team measure (both $p > 0.17$) but we find a significant main effect of gratitude for the Red team measure ($F_{195,1} = 12.44$, $p < 0.01$). However, consistent with our theory, this effect is situated in the ingroup condition. Members of the Red team, whose advisee is ingroup, rated closeness to the Red team significantly higher when gratitude was given versus not ($M = 4.75$ vs. $M = 3.88$; t

= 3.61, $p < 0.01$) while members of the Blue team, whose advisee is outgroup, did not ($M = 3.47$ vs. $M = 3.14$; $t = 1.37$, $p > 0.17$). We discuss these results more fully in supplemental analyses.

Tests of H1

We predict that auditors whose advice is rejected will be more willing to provide advice in the future when they receive gratitude for their past advice (versus not), but to a greater extent when gratitude is provided by an ingroup compared to an outgroup advisee (H1). We test H1 in a 2 x 2 analysis of variance (ANOVA) with advisor auditors' willingness to provide subsequent advice as the dependent variable. Our results are shown in Table 1, Panels A (descriptive statistics), B (ANOVA), and C (planned contrasts). In particular, we test for the pattern in H1 using an ordinal contrast relying on weights of $\{+3, -1, -1, -1\}$ where the *Yes Gratitude/Ingroup* condition is assigned a weight of +3 and all other conditions are assigned a weight of -1. The significant planned contrast ($p = 0.02$), insignificant residual between-cells variance ($p = 0.76$, two-tailed), and contrast variance residual of 12 percent indicate the hypothesized contrast describes the data well. Auditors are more willing to provide advice in the future when gratitude is received versus not from an ingroup advisee ($M = 8.77$ vs. $M = 7.96$; $p = 0.02$) but not from an outgroup advisee ($M = 8.23$ vs. $M = 8.19$; $p = 0.92$, two-tailed). Further, compared to auditors with an outgroup advisee (regardless of gratitude), auditors who receive gratitude from an ingroup advisee are more willing to provide advice in the future (both $p \leq 0.08$) whereas auditors who do not receive gratitude from an ingroup advisee do not differ in their willingness to provide advice (both $p > 0.48$, two-tailed). Overall, results are consistent with H1 and demonstrate that expressions of gratitude can soften the blow of advice rejection and encourage future advice provision if the advisee is an ingroup member.

Supplemental Analysis: Evidence of Underlying Process

We next examine the process through which H1 unfolds. We expect auditors will feel a greater sense of closeness to the advisee when they receive gratitude but only when the advisee is a member of the advisor's ingroup. That is, gratitude will have a minimal effect on felt closeness when the advisee is already a more distant outgroup member, because the outgroup is not a source from which the advisor typically derives self-esteem and the advisor will not be motivated to enhance evaluations of the self, the advisee, or the group to which the advisee belongs. This feeling of closeness (for ingroup advisees) will also increase the advisor's belief that the advisee will follow the advice, which will in turn increase the advisors' willingness to provide advice. Our measure of felt closeness is the 7-point IOS scale and our measure of the belief advice will be followed is rated on a 7-point agreement scale (both measures described earlier).

We test this model by performing bias corrected and accelerated bootstrapping for serial mediation as suggested in model 6 of Preacher and Hayes (2008), separately analyzing the link between gratitude and felt closeness for ingroup and outgroup membership but collapsing all other links across group membership. See Figure 1 for a graphical depiction of this model.¹⁰ Our analyses strongly support mediation when the advisee is part of the advisor's ingroup but not outgroup. Link 1 is positive and significant ($p < 0.01$) for *Ingroup* and insignificant for *Outgroup* ($p = 0.80$, two-tailed). Link 2 is positive and significant ($p < 0.01$), Link 3 is positive and significant ($p < 0.01$) and the 95 percent bootstrapped, bias-corrected confidence interval for the indirect path via links 1-3 does not contain zero for *Ingroup* (0.08, 0.39) but contains zero for *Outgroup* (-0.08, 0.06), indicating significance for the former but not the latter (Preacher and

¹⁰ In addition to this analysis, we also examined how perceptions of social worth influenced our results. We measure social worth with the three questions described in the previous section of the paper. An untabulated analysis finds that gratitude significantly increases social worth ($p < 0.01$) and that perceptions of social worth are highly predictive of willingness to provide advice ($p < 0.01$); this finding replicates previous research (Grant and Gino 2010). However, group membership has no influence on social worth as a main effect ($p > 0.75$) or as an interacting factor ($p > 0.23$). This result highlights how group membership extends the previous literature, by showing gratitude works through a mediating mechanism other than social worth when group membership varies between conditions.

Hayes 2008). Therefore, the willingness of advisors to provide advice in the future when their past advice is rejected but they receive gratitude (versus not) from an ingroup advisee is mediated by the closeness felt to the advisee and the belief the advisee will follow the advice.

Supplemental Analysis: Quality of Advice

Recall that after asking participants their willingness to give advice (without providing any additional facts), and after asking participants to reflect on the first and second advisee, we provided them with detailed facts about the second issue they were asked advice for and asked them to write down any advice they would give. Thus, regardless of participants' willingness to give advice, we required them to respond. Specifically, prior to reading the facts, participants were instructed to "review the facts and write a brief note that outlines" what they would bring up to the second advisee. After reading the facts, participants were instructed to "indicate any advice or communication" they would provide to the second advisee. We code these responses along several dimensions in an attempt to determine the quality of advice provided.

Based on our consideration of prior advice research in auditing and psychology, we developed a coding structure that captures advice quality on ostensibly objective criteria. That is, identifying whether the criteria is met involves counting whether specific words or phrases are mentioned by participants and does not involve assessing the quality of those statements.¹¹ We identified seven objective dimensions, three of which capture whether the dimension is present or not in a participant's response (i.e., coded 0 or 1) and four of which comprise a count of the number of times the dimension is present in a participant's response (i.e., coded 0, 1, 2 ..., k).

¹¹ We have also developed a coding structure that attempts to capture advice quality based on more subjective criteria. Specifically, informed by prior advice research in auditing and psychology, we instruct coders that high quality advice is well-justified and should include multiple relevant facts about the issue, use these facts to support the recommendation, and present a reasonable and actionable recommendation to the other party. Advice quality is rated on an 11-point scale from "very low quality" (1) to "very high quality" (11), with a midpoint of "neither low nor high quality" (6). This coding has yet to be performed.

The former dimensions are: *Guidance* – whether or not a response refers to accounting guidance or GAAP rules to support a position; *Concern* – whether or not a response raises concern or worry about the reasonableness of the current inventory valuation or writedown; and *Increase Writedown* – whether or not a response explicitly recommends a higher writedown is needed.

The latter dimensions are: *Inquire* – the number of times a response suggests asking management for additional information; *Testing* – the number of times a response suggests performing additional audit procedures; *Facts* – the number of case facts (from a list of 20 possible facts) discussed in the response; and *Key Facts* – the number of key case facts (four total) discussed in the response.

Two independent coders with public accounting experience, who were blind to hypotheses and experimental conditions, coded each response to indicate whether it contained one or more statements that fit each of the seven dimensions above. Initial inter-rater agreement across all dimensions was 79.3 percent but varied by dimension. Agreement (Cohen's kappa) for each dimension was as follows: *Guidance* – 96.6 percent (0.90); *Concern* – 76.8 percent (0.42); *Increase Writedown* – 84.1 percent (0.49); *Inquire* – 81.6 percent (0.58); *Testing* – 72.0 percent (0.57); *Facts* – 51.2 percent (0.42); and *Key Facts* – 74.9 percent (0.63).¹² Coders met to resolve disagreements and both authors mediated these resolutions; both coders and authors were blind to experimental condition during this process. We use the resolved coding in our analyses.

We do not find any evidence that auditors who receive gratitude from an ingroup advisee provide higher quality advice than auditors in the other conditions, based on our objective criteria. However, for three dimensions, we find that auditors provide higher quality advice when the advisee is an ingroup versus outgroup member. Specifically, auditors are more likely to

¹² Thus, all dimensions had at least moderate agreement ($\kappa > 0.40$) and two had substantial agreement ($\kappa > 0.60$).

provide *Guidance* (0.25 vs. 0.14; $F_{203,1} = 3.83$, $p = 0.05$) and provide more *Facts* (2.98 vs. 2.33; $F_{203,1} = 7.35$, $p < 0.01$) and *Key Facts* (1.15 vs. 0.93; $F_{203,1} = 3.17$, $p = 0.08$) when the advisee is a member of the advisor's ingroup (versus outgroup). Interestingly, auditors are less likely to suggest to *Increase Writedown* (0.13 vs. 0.22; $F_{203,1} = 3.23$, $p = 0.07$) when the advisee is a member of the advisor's ingroup (versus outgroup). We find no other significant main or interaction effects of gratitude or advisee group membership (all $F < 2.07$, all $p > 0.15$).

V. CONCLUSION

Audit firms encourage employees to provide and receive informal advice, so as to share information and recommendations to improve audit quality (Zeidman 2010; Ranzilla et al. 2011). However, it is inevitable that advice will sometimes be ignored – auditors closer to the issue at hand have final authority to make their own decisions and reject outside advice. This paper examines a setting in which advice was rejected in a previous period and focuses on how rejection alters intentions to provide advice in the future. The accounting literature has examined how interpersonal factors influence how advice is utilized (Kadous et al. 2013; Knechel and Leiby 2016), but our paper is the first to examine the advice rejection setting. We conduct an experiment to investigate how group membership and expressions of gratitude influence intentions to provide advice in the future in this setting.

We theorize that gratitude will reduce the impact of rejection and increase willingness to provide advice in the future, but that this effect will be moderated by group membership. More specifically, we hypothesize that auditors will feel a closer bond to advisees who are ingroup (vs. outgroup) members, which will make ingroup advisees' expressions of gratitude more impactful and reduce the sting of rejection, producing higher willingness to provide future advice. Our results support our predictions, showing that expressions of gratitude significantly increase

willingness to provide advice, but only when the advisee is an ingroup member. Our process analysis supports our theoretical account, highlighting the mediating role of closeness to the advisee and perceptions about the usefulness of the advice provided.

Our study provides useful theoretical and practical contributions. At a theoretical level, we advance our understanding of advice giving by establishing a boundary condition on the effects of gratitude when advice is rejected. We find that gratitude is more effective when the advisor feels a greater sense of closeness to the advisee, a theoretically important moderator that extends previous research (e.g., Grant and Gino 2010; Belkin and Kong 2018; Blunden et al. 2019). At a practical level, our study advances our understanding of advice sharing within audits. Audit firms encourage advice sharing (Zeidman 2010), and our result provides a simple solution – encouraging expressions of gratitude – that could be implemented to help reduce the negative effects of advice rejection. However, our solution comes with a caveat; it may be ineffective when the advisor and advisee have a weak bond or identity with one another. We note that, while our study focuses on mitigating the effects of advice rejection, our theory could also help explain how auditors manage other forms of stress in their workplace. Time pressure, turnover, and other factors can create difficult conditions for auditors. Future research could examine how expressions of gratitude could help reduce the effects of other types of stress as well.

Our findings could be especially important for group audits, where information sharing is a critical component of audit effectiveness (Sunderland and Trompeter 2017; Downey and Bedard 2019). Our theory and results emphasize the importance of building a sense of shared team membership amongst all employees on a group audit, as this sense of team membership increases the effects of gratitude when advice is rejected. Future research could examine how group membership moderates the effects of other psychological variables. We also note that our

manipulated and measured variables are relatively powerful, explicitly changing how advice is received and willingness to provide advice in the future. We expect that our results would also apply to more subtle forms of the same theoretical construct – where advice is used but underweighted, or where auditors are willing to provide advice in the future but put less effort into delivering it. Future research could examine more subtle versions of our manipulations to investigate how they change auditor decision making.

Our findings present several other opportunities for future research. First, our manipulation of group membership is very stark – assigning participants to either a Red or Blue team in the spirit of the minimal group paradigm (Tajfel 1978; Turner 1978; Dovidio et al. 1998; Towry 2003). While this design choice presents the most direct test of our underlying theory, other research could examine how other aspects of group membership (such as distance from a central location or job responsibilities) could produce similar effects. Second, our process evidence highlights the importance of both closeness to the advisee and the perceived usefulness of the advice provided. Future research could examine how both factors vary based on other aspects of the audit, and how this variation could influence overall audit quality. Finally, our experiment utilizes relatively technical materials in which a colleague requests advice on a relatively complex audit issue. While this setting represents a strong and important test of our theory, other research could examine how advice operates for other types of more or less technical matters.

REFERENCES

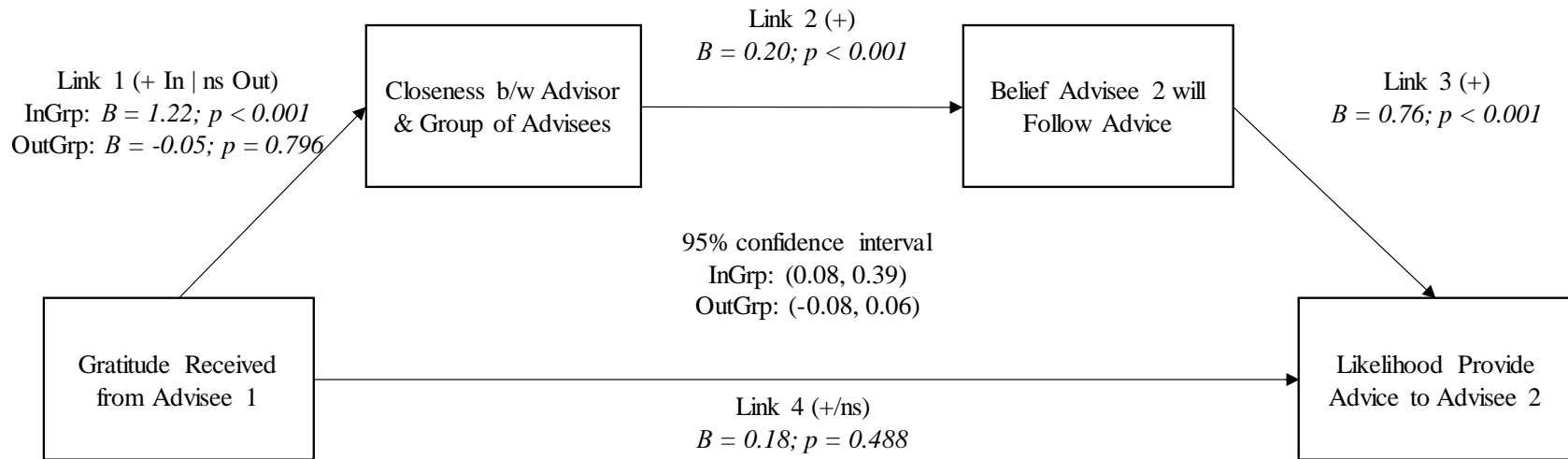
- American Institute of Certified Public Accountants (AICPA). 2012. *A Firm's System of Quality Control*. Statement on Quality Control Standards No. 8. New York, NY: AICPA.
- Aron, A., E. N. Aron, and D. Smollan. 1992. Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology* 63 (4): 596-612.
- Bauer, T. D. 2015. The effects of client identity strength and professional identity salience on auditor judgments. *The Accounting Review* 90 (1): 95-114.
- Bauer, T. D., S. M. Hillison, M. E. Peecher, and B. Pomeroy. 2020. Revising Audit Plans to Address Fraud Risk: A Case of "Do as I Advise not as I Do?" *Contemporary Accounting Research*, 37 (4): 2558-2589.
- Belkin, L. Y., and D. T. Kong. 2018. Implications of advice rejection in repeated exchanges: Advisor responses and advisee gratitude expression as a buffer. *Journal of Experimental Social Psychology* 78: 181-194.
- Blunden, H., J. M. Logg, A. W. Brooks, L. K. John, and F. Gino. 2019. Seeker Beware: The interpersonal costs of ignoring advice. *Organizational Behavior and Human Decision Processes* 150: 83-100.
- Bonaccio, S., and R. S. Dalal. 2006. Advice taking and decision-making: An integrative literature review, and implications for the organizational sciences. *Organizational Behavior and Human Decision Processes* 101 (2): 127-151.
- Brewer, M. B. 1999. The psychology of prejudice: Ingroup love and outgroup hate? *Journal of Social Issues* 55 (3): 429-444.
- Correll, J., and B. Park. 2005. A model of the ingroup as a social resource. *Personality and Social Psychology Review* 9 (4): 341-359.
- Dalal, R. S., and S. Bonaccio. 2010. What types of advice do decision-makers prefer? *Organizational Behavior and Human Decision Processes* 112 (1): 11-23.
- Danos, P., J. W. Eichenseher, and D. L. Holt. 1989. Specialized knowledge and its communication in auditing. *Contemporary Accounting Research* 6 (1): 91-109.
- De Hooge, I. E., P. W. Verlegh, and S. C. Tzioti. 2014. Emotions in advice taking: The roles of agency and valence. *Journal of Behavioral Decision Making* 27 (3): 246-258.
- Dovidio, J., S. Gaertner, and A. Validzic. 1998. Intergroup bias: Status, differentiation, and a common ingroup identity. *Journal of Personality and Social Psychology* 75 (1): 109-120.

- Downey, D. H., and J. C. Bedard. 2019. Coordination and communication challenges in global group audits. *Auditing: A Journal of Practice & Theory* 38 (1): 123-147.
- Downey, D. H., and K. D. Westermann. 2019. Challenging global group audits: The perspective of U.S. group audit leads. Working paper.
- Emby, C., and M. Gibbins. 1988. Good judgment in public accounting: Quality and justification. *Contemporary Accounting Research* 4 (2): 287 - 313.
- Estep, C. 2021. Auditor integration of IT specialist input on internal control issues: How a weaker team identity can be beneficial. *The Accounting Review*, forthcoming.
- Fridman, I., K. A. Scherr, P. A. Glare, and E. T. Higgins. 2016. Using a non-fit message helps to de-intensify negative reactions to tough advice. *Personality and Social Psychology Bulletin* 42 (8): 1025-1044.
- Galinsky, A. and G. Ku. 2004. The effects of perspective-taking on prejudice: The moderating role of self-evaluation. *Personality and Social Psychology Bulletin* 30 (5): 594-604.
- Gibbins, M., and C. Emby. 1985. Evidence on the nature of professional judgment in public accounting. In *Auditing Research Symposium 1984*, edited by A. R. Abdel-Khalik, and I. Solomon, Champaign, IL: College of Commerce and Business Administration.
- Gino, F., and M. E. Schweitzer. 2008. Blinded by anger or feeling the love: How emotions influence advice taking. *Journal of Applied Psychology* 93 (5): 1165–1173.
- Grant, A.M, and F. Gino. 2010. A little thanks goes a long way: Explaining why gratitude expressions motivate prosocial behavior. *Journal of Personality and Social Psychology* 98 (6): 946-955.
- Griffith, E., J. Hammersley, K. Kadous, and D. Young. 2015. Auditor mindsets and audits of complex estimates. *Journal of Accounting Research* 53 (1): 49-77.
- Griffith, E. E., K. Kadous, and C. A. Proell. 2020. Friends in low places: How peer advice and expected leadership feedback affect staff auditors' willingness to speak up. *Accounting, Organizations and Society* 87: 1-16.
- Guggenmos, R. D., M. D. Piercey, and C. P. Agoglia. 2018. Custom contrast testing: Current trends and a new approach. *The Accounting Review* 93 (5): 223–244.
- Haas, M. R., and M. T. Hansen. 2007. Different knowledge, different benefits: Toward a productivity perspective on knowledge sharing in organizations. *Strategic Management Journal* 28 (11): 1133-1153.
- Hogg, M. A. 2013. Intergroup relations. In *Handbook of Social Psychology*, edited by J. DeLamater and A. Ward, 533-561. Dordrecht, Netherlands: Springer Publishing.

- Hoorens, V. 1995. Self-favoring biases, self-presentation, and the self-other asymmetry in social comparison. *Journal of Personality* 63 (4): 793–817.
- Howard, J. W., and M. Rothbart. 1980. Social categorization and memory for in-group and out-group behavior. *Journal of Personality and Social Psychology* 38 (2): 301.
- International Auditing and Assurance Standards Board (IAASB). 2005. *Quality Control for an Audit of Financial Statements*. ISA 220. New York, NY: IAASB.
- Kadous, K., J. Leiby, and M. E. Peecher. 2013. How do auditors weight informal contrary advice? The joint influence of advisor social bond and advice justifiability. *The Accounting Review* 88 (6): 2061-2087.
- Kane, A., L. Argote, and J. Levine. 2005. Knowledge transfer between groups via personnel rotation: Effects of social identity and knowledge quality. *Organizational Behavior and Human Decision Processes* 96 (1): 56-71.
- Kennedy, J., D. N. Kleinmuntz, and M. E. Peecher. 1997. Determinants of the justifiability of performance in ill-structured audit tasks. *Journal of Accounting Research* 35 (Supplement): 105-123.
- Knechel, W. R., and J. Leiby. 2016. If you want my advice: Status motives and audit consultations about accounting estimates. *Journal of Accounting Research* 54 (5): 1331-1364.
- Libby, R., R. Bloomfield, and M. W. Nelson. 2002. Experimental Research in Financial Accounting. *Accounting, Organizations and Society* 27 (8): 775-810.
- MacGeorge, E. L., B. Feng, and L.M. Guntzviller. 2016. Advice: Expanding the Communication Paradigm. *Annals of the International Communication Association* 40 (1): 213-243.
- Mackie, D. M., L. T. Worth, and A. G. Asuncion. 1990. Processing of persuasive in-group messages. *Journal of Personality and Social Psychology* 58 (5): 812-822.
- McGarty, C., S. A. Haslam, K. J. Hutchinson, and J. C. Turner. 1994. The effects of salient group memberships on persuasion. *Small Group Research* 25 (2): 267-293.
- Peecher, M. E., and I. J. Solomon. 2001. Theory and Experimentation in Studies of Audit Judgments and Decisions: Avoiding Common Research Traps. *International Journal of Auditing* 5 (3): 193-203.
- Peecher, M. E., M. D. Piercey, J. S. Rich, and R. M. Tubbs. 2010. The effects of a supervisor's active intervention in subordinates' judgments, directional goals, and perceived technical knowledge advantage on audit team judgments. *The Accounting Review* 85 (5): 1763-1786.

- Preacher, K., and A. Hayes. 2008. Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods* 40 (3): 879-891.
- Ranzilla, S., R. Chevalier, G. Herrmann, S. Glover, and D. Prawitt. 2011. *Elevating professional judgment in auditing and accounting: The KPMG professional judgment framework*. KPMG LLP.
- Robbins, J. M., and J. I. Krueger. 2005. Social projection to ingroups and outgroups: A review and meta-analysis. *Personality and Social Psychology Review* 9 (1): 32-47.
- Sunderland, D., and G. M. Trompeter. 2017. Multinational group audits: Problems faced in practice and opportunities for research. *Auditing: A Journal of Practice & Theory* 36 (3): 159-183.
- Szulanski, G., D. Ringov, and R. J. Jensen. 2016. Overcoming stickiness: How the timing of knowledge transfer methods affects transfer difficulty. *Organization Science* 27 (2): 304-322.
- Tajfel, H. 1978. Social categorization, social identity and social comparison: Studies in the social psychology of intergroup relations. In *Differentiation Between Social Groups*, edited by: H. Tajfel, 61-76. London, UK: Academic Press.
- Towry, K. L. 2003. Control in a teamwork environment – The impact of social ties on the effectiveness of mutual monitoring contracts. *The Accounting Review* 78 (4): 1069-1095.
- Trotman, K. T., T. D. Bauer, and K. A. Humphreys. 2015. Group judgment and decision making in auditing: Past and future research. *Accounting, Organizations and Society* 47: 56-72.
- Turner, J. C. (1978). Social categorization and social discrimination in the minimal group paradigm. In *Differentiation between social groups: Studies in the social psychology of intergroup relations*, edited by: H. Tajfel, 101-140. London, UK: Academic Press.
- Zeidman, H. 2010. Audit partner panel discussion: How we are dealing with increased judgment. *Presentation at 2010 University of Kansas Auditing Symposium*. Kansas City, KS, April 30.

FIGURE 1
Experiment One – Psychological Licensing Process for No MW versus MW Conditions



This figure captures the underlying process for an auditor advisor’s willingness to provide advice in the future when prior advice has been rejected but s/he receives gratitude (or not) from an advisee, conditional on the advisee’s ingroup versus outgroup membership, using the Preacher and Hayes (2008) method for testing indirect effects. We examine Link 1 separately for *Ingroup* and *Outgroup* membership and we collapse across group membership to examine all other links. The mediators (*Closeness* and *Belief Advice will be Followed*) are measured using the 7-point Inclusion of Others in the Self scale and a 7-point agreement scale from “strongly disagree” (1) to “strongly agree” (7). The terminal dependent variable (*Likelihood Provide Advice*) is measured using an 11-point scale from “very low” (1) to “very high” (11). Links 1 (*Ingroup*), 2, and 3 are significant in the expected direction (all p-values are one-tailed) and Link 1 (*Outgroup*) is not significant as expected (p-value is two-tailed). We expect receiving gratitude, compared to receiving no gratitude, will increase the closeness felt between the advisor and the advisee’s group when the advisee is an ingroup (but not an outgroup) member (Link 1), this greater felt closeness will in turn increase the advisor’s belief that the advisee will follow advice if provided (Link 2), and this higher belief will in turn increase the advisor’s likelihood of providing advice (Link 3). The 95% bias-corrected and bootstrapped confidence interval for the indirect effect of Links 1 through 3 is reported and does not contain zero for *Ingroup* but does contain zero for *Outgroup*, supporting mediation of the results of H1 in the former condition. Link 4 is the direct effect of receiving gratitude versus not on the likelihood of providing future advice, when including both mediators in the model.

TABLE 1
Tests of H1

Panel A: Willingness to provide advice in the future – Mean (Standard Error), *Sample Size*

		Advisee Group Membership	
		Ingroup	Outgroup
Gratitude Received	Yes	8.77	8.23
		(0.27)	(0.27)
	No	7.96	8.19
		(0.28)	(0.27)
		52	52

Panel B: ANOVA

Source	SS	df	MS	F	p-value ‡
Gratitude Received	9.28	1	9.28	2.39	0.124
Advisee Group Membership	1.22	1	1.22	0.31	0.576
Gratitude x Group Membership	7.67	1	7.67	1.97	0.162
Error	788.46	203	3.88		

Panel C: Planned tests

Contrast and Residual Between Cells Variance	SS	df	MS	F	p-value
<i>Yes Gratitude/Ingroup</i> > other three conditions [Contrast weights: +3, -1, -1, -1]	16.00	1	16.00	4.12	0.022*
Residual between-cells variance	2.17	2	1.08	0.28	0.756 ‡
Total between-cells variance	18.17	3	6.06		
Contrast Variance Residual ^	11.92%				

Simple effects tests	t	p-value
<i>Ingroup: Yes vs. No Gratitude</i>	2.08	0.020*
<i>Outgroup: Yes vs. No Gratitude</i>	0.10	0.921 ‡
<i>Yes Gratitude: Ingroup vs. Outgroup</i>	1.39	0.083*
<i>Yes Gratitude/Ingroup vs. No Gratitude/Outgroup</i>	1.49	0.069*
<i>No Gratitude: Ingroup vs. Outgroup</i>	-0.60	0.552 ‡
<i>No Gratitude/Ingroup vs. Yes Gratitude/Outgroup</i>	0.70	0.488 ‡

Participants indicated the likelihood they would provide informal advice (again), rated on an 11-point scale from “very low” (1) to “very high” (11), after having their initial advice rejected. The two manipulated between-subjects *Gratitude Received* conditions are *Yes* and *No* and the two manipulated between-subjects *Advisee Group Membership* conditions are *Ingroup* (both Advisor and Advisee on Red team) and *Outgroup* (Advisor on Blue team and Advisee on Red team).

^ Following Guggenmos, Piercey, and Agoglia (2018), we calculated the contrast variance residual as the residual between-cells variance sum of squares divided by total between-cells variance sum of squares. Results indicate that approximately 12 percent of the between-cells variance in our model is explained by factors other than the contrast.

* Directional prediction; reported p-values are one-tailed.

‡ No directional prediction; reported p-values are two-tailed.