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Groups are often tasked with making important organizational decisions. For example, CEO compensation judgments are made by groups of decision makers with no specialized compensation training who receive advice from a third party with a potential bias. This study seeks to understand the effects of this challenging context on decision making. We explore whether and how decision makers adjust their judgments, considering the potential for advisor bias. This is an essential issue in CEO compensation that is difficult to assess through traditional archival research based on publicly available data. Our study explores how decision makers, in the context of compensation committees, process and use advice provided by external parties. Our findings illustrate that individuals adjust for known conflicts of interest in the information provided to them. However, we do not find that individuals discount lavish advice to a greater extent than more modest advice, and the group decision-making process fails to correct for this tendency.

Keywords: group judgment, social decision schemes, conflict of interest, biased advice, executive compensation

Executive compensation has received substantial attention in the media for many years, much of it negative (Crystal, 1991). Public perception is often that executives are extravagantly and unfairly compensated, whereas organizations themselves are frequently concerned that executives are compensated too modestly (T. Shin, 2013). Recently, both the U.S. Congress and the Security Exchange Commission have begun questioning whether the social context in which executive compensation packages are decided “rig the game” in favor of higher compensation (e.g., Waxman, 2007). Whereas some scholars believe that this issue can be managed through already mandated reforms (Nelson, 2006), others remain skeptical (Bazerman, Moore, Tetlock, & Tanlu, 2006).

Large companies use compensation committees, the members of which are typically on the company’s board of directors, to assign compensation (typically in the form of salary, bonuses, and equity) for the Chief Executive Officer (CEO) and other top executives. These compensation committees frequently hire expert consultants to advise them in designing compensation schemes. However, the committee itself, the members of which are not typically selected for their expertise in compensation design, makes the ultimate judgment. Thus, a compensation committee is a group-level judge-advisor system (Sniezek & Buckley, 1995), in which the group receives outside advice and may act on it or not as it sees fit in rendering its decision. Complicating matters, many compensation consultants also provide additional services to the firm, such as actuarial services for pension benefits and support for the human resources department (cf., Shockley, 1981). As a result, compensation consultants are often subject to conflicts of interest, in that they provide advice on compensation for the CEO that retains them for other services (Bebchuk & Fried, 2006; Conyon, Peck, & Sadler, 2009; Morgenson, 2006).

Our goal in this research is to examine advice taking and bias in the context of group judgment. We also aim to contribute to the thorny
Individual Processing of Biased Advice

The literature regarding how biased parties may, knowingly or not, provide self-serving recommendations is relatively well developed. For example, Moore, Tetlock, Tanlu, and Bazerman (2006) formulated moral seduction theory as a means of understanding how people may not be able to judge the extent to which their decision making is affected by their conflicts of interest (cf., Diekmann, Samuels, Ross, & Bazerman, 1997; Messick & Sentis, 1983). Moore and colleagues invoke both psychological (e.g., escalation of commitment) and structural (financial incentives) forces contributing to self-interested or biased behavior in the context of auditing, and provide an account of how even auditors seeking to provide unbiased evaluations may be incapable of doing so. Work in this area focuses on the motives and behavior of those providing biased outputs (e.g., audits, recommendations, evaluations).

More central to the current research is the question of how potentially biased outputs are treated by those who inherit them, such as executive compensation committees (cf., Gino, Wood, & Schweitzer, 2012). Processing potentially biased advice is problematic for a number of reasons. Decision makers are often unaware of the factors impacting their decision processes and believe they are capable of discounting irrelevant or faulty information when, in fact, this information continues to affect their judgments (Calvert, 1985; Strack, & Mussweiler, 1997; Tversky & Kahneman, 1974). That is, even when decision makers believe they are making adequate adjustments for biased advice, their lack of insight into their own decision processes prevents them from seeing that they are, in fact, not. This effect may be particularly strong when decision makers actively solicit advice from what they consider to be expert sources (i.e., judge-advisor systems; Sniezek & Buckley, 1995; Sniezek & Van Swol, 2001).

In a judge-advisor system, a decision maker receives input from another party who does not have any formal power in the decision-making process. The weight (if any) that the advisor’s input has on the judge’s decision is entirely in the judge’s hands. In the context of CEO compensation decisions, compensation committee members jointly play the role of judge, whereas the compensation consultant plays the role of advisor. Although compensation consultants have no direct decision power, their advice is typically sought out at a cost, with the assumption that it has value and will aid in the compensation committee’s decision making (Harvey & Fischer, 1997). However, research has also shown that judges are, in some cases at least, capable of identifying advice as being of poor objective quality and discounting it (Gardner & Berry, 1995; Yaniv & Kleinberger, 2000), although the extent to which advice is actually discounted may be inadequate (Lim & O’Connor, 1995). Specifically, when the advice received from an advisor is suspect because of a potential conflict of interest on the advisor’s part, judges often inadequately adjust for the bias in advice in their final judgments (Cain, Loewenstein, & Moore, 2005).

Whether or not decision makers adequately adjust for bias in advice, the literature suggests that they do make adjustments. Thus, consistent with the literature, we predict that decision makers’ judgments will reflect a significant negative adjustment when they receive advice from
Group Processing of Biased Advice

Committees (i.e., groups) are typically the final judges in setting executive compensation schemes. Jointly examining how individual preferences are informed and how groups make their final judgments is essential to providing a deeper understanding of how compensation committees are affected by the context underlying their decisions. Understanding how individual preferences are combined into a group decision in this context is also important for policymakers. For example, if group decisions are simply the unbiased, uncorrected aggregation of individual preferences, then any policy seeking to impact the compensation setting process could do so either at the individual (pregroup) stage, in which individuals form their own preferences (perhaps through training or education), or at the interactive group stage, in which inputs are combined (perhaps through enforcing a set of best practices for how the group operates). However, if the group decision is not a simple aggregation of its members’ preference, then intervening at the individual level is unlikely to be effective, and regulating the group process would be prescribed.

The fact that compensation decisions are made in a collective context complicates matters substantially relative to individual decisions. However, the group context also offers reasons to believe that groups may correct for biases and errors in judgment that individuals do not. This offers the possibility of groups producing superior judgments relative to individuals (Hinsz, Tindale, & Vollrath, 1997; Laughlin, Bonner, & Miner, 2002; Shaw, 1932).

The social combination literature has shown that group judgments are the product of indi-
individual member preferences aggregated in generally predictable ways (e.g., Bottger & Yetton, 1988; Davis, 1973; Laughlin, 2011; Lorge & Solomon, 1955; Smoke & Zajonc, 1962; Thomas & Fink, 1961; Yetton & Bottger, 1982). However, the nature of the decision context influences the manner in which individual inputs combine to form group judgments. When groups work on tasks that possess objectively correct responses that can be demonstrated to others (e.g., math problems), groups typically follow a “truth wins” decision scheme, wherein correct group members demonstrate to the group that they have the right answer and the group adopts that answer (Laughlin, 1980; Laughlin & Ellis, 1986). In contrast, when groups work on tasks that do not possess correct responses, other factors typically govern the aggregation of member preferences (e.g., majority preferences; Laughlin, 1999, 2011), which may attenuate or exaggerate bias depending on the distribution of bias within the group (cf., Dion, Baron, & Miller, 1970). However, when group decisions are quantities (e.g., monetary compensation) rather than choices (e.g., job candidates), the literature on groups is less advanced (Bonner & Baumann, 2012; Davis, 1996; Hinsz, 1999).

The decisions of interest in a compensation scenario are judgmental in nature and involve quantities as opposed to choices. Prior research suggests two competing predictions for such tasks: centrality and extremity. Centrality models predict that in judgmental tasks involving quantities, group decisions will be most affected by members whose preferences are closest to the central tendency of the group (e.g., the median), which is analogous to a “majority wins” decision in the context of choices (Davis, 1996; Davis et al., 1997; Hinsz, 1999; Nadler et al., 2001; Ohtsubo, Masuchi, & Nakanishi, 2002). Other research demonstrates that, in some situations, members with extreme positions may dominate the group (Van Swol, 2009). This process can lead groups to become more extreme in their judgments relative to average member preferences, similar to what is found in the classic research on group polarization (Dion et al., 1970; Moscovici & Zavalloni, 1969). Specifically, recent research suggests that this tendency toward extremity in the context of a compensation paradigm could be expected to take the form of “lowballing,” or taking an aggressive, hawkish position with respect to the payee (Aaldering & De Dreu, 2012; Bonner, Okhuysen, & Sondak, 2011; Steinel, De Dreu, Ouwehand, & Ramirez-Marín, 2009). In a compensation scenario, a lowballing scheme would lead those determining the compensation package to offer a relatively low amount to the payee.

Both of these tendencies (i.e., shifts to centrality or lowballing) have support in the group-decision-making literature. Further, because there is relatively little work in this specific area, neither is clearly better suited to the specific situation of interest in the current research (i.e., compensation decisions). As such, we set up these two predictions as competing hypotheses to be tested against our data.

**Hypothesis 3a:** Group judgments will closely mirror the preference of the most central member.

**Hypothesis 3b:** Group judgments will closely mirror the preference of the most conservative (“lowball”) member.

These last hypotheses address an important but overlooked scenario in the processing of potentially biased information (e.g., information received from a party with a conflict of interest), namely, the degree to which the dynamic processes involved in group judgment may or may not affect how such information is treated in forming a group judgment.

**Method**

**Participants and Design**

Participants were 315 master of business administration (MBA) students enrolled in courses at a large western U.S. university. Of these participants, 90 took part in pilot work used to calibrate the materials of our final experiment, and the remaining 225 took part in the study proper. We employed a vignette (i.e., hypothetical situation/role-playing) experiment. Our procedure involved exposing participants to a hypothetical situation in which they played the role of a member of a board in the process of determining the proper compensation package for a new CEO (cf., Elliott, Hodge, Kennedy, & Pronk, 2007).

Our experiment used a between-subjects design with two independent variables, each with
two levels: consultant conflict of interest (CoI), with “conflict of interest” versus “no conflict of interest”; and magnitude of compensation package recommended by the consultant (MAGNITUDE), with “in-bounds” (i.e., within the bounds of provided comparison packages) versus “out-of-bounds” (i.e., higher than any comparable scheme provided). In addition, the study included a control condition with no consultant recommendation (i.e., a five-cell design). All participants first completed the task individually, and then once again in the same experimental condition as a member of a three-person group. We used three-person groups to mimic the size of typical compensation committees.

This individual–group design allowed us to assess how individual preferences aggregated to the group level. The primary dependent variables of interest were the perceptions of the individuals in terms of what was guiding their preferences, the overall value of the compensation package preferred by the individuals (preinteraction), the final judgment of the group (postinteraction), and the differential distribution of the package value across its subcomponents (i.e., salary, performance-contingent bonus, and equity), both for preinteraction individual preferences and postinteraction group judgments.

Materials and Procedure

Participants were presented with a hypothetical case in which they played the role of a board member who was part of the decision-making body tasked with determining the compensation package for a new CEO. Participants first read a description of their charge:

As a member of the board of directors, your task is to determine the annual compensation package for the new CEO of your company. This individual is a leader in his field, the best qualified candidate, and is about to be hired by the firm. Note that this CEO’s previous employment was at a privately held firm that is not required to file financial statements with the Securities Exchange Commission. As a result, the compensation package he received from his previous employer is not known.

Participants were then told that they would receive information to help them in their decision making that would include the CEO’s resume and information on comparable compensation from a sample of publicly traded firms of similar size that operate in the same standard industrial classification code as the participant’s company. All participants except those in the control condition were informed that the board had contracted a compensation consulting firm to recommend an annual compensation package for the CEO. Those in the “conflict of interest” condition were told,

This compensation consultant was hired by you and performs other work for the firm. This additional work includes actuarial service for the firm’s broad based pension plan, consulting for the human resources department, and also compensation advice for other senior managers in the firm. In the previous year, the additional work constituted 85% of the consulting firm’s revenues earned for services to this firm. These services ultimately fall under the umbrella of the CEO, and will remain so under the incoming CEO.

Those in the “no conflict of interest” condition were instead told, “This compensation consultant was hired by you and does not perform other work for the firm.”

Participants were then provided with an exceptional CEO candidate resume (see Appendix A), a list of comparison realized compensation packages (kept constant across cells; see Appendix B), and, except in the control condition, the advice of the compensation consultant. This advice contained the recommendation that the total compensation package should be divided into 5% salary, 15% performance-contingent bonus, and 80% equity (kept constant across cells). This advice also manipulated both of the independent variables of the study, reinforcing the conflict of interest or lack thereof introduced in the earlier materials, and also providing advice that the CEO’s total package value should either be high, but within the range of the packages provided in the comparisons (i.e., “in-bounds” = $20,000,000) or outside of this range (i.e., “out-of-bounds” = $30,000,000).

After reviewing these materials, participants generated an individual preference for the CEO’s total compensation package and how it should be divided between salary, performance contingent bonus, and equity. After generating this preference, participants were asked to indicate, on 7-point scales, the extent to which their decision was influenced by the CEO’s resume, the comparison realized compensation packages, and (except in the case of the control condition) the advice of the compensation consultant. After completing this individual section of the task, participants were assigned to groups of three members (all of whom shared the same
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Time 1, i.e., individual-level – cell assignment), to generate a collective judgment as to the CEO’s total compensation package and how it should be divided between salary, performance contingent bonus, and equity.

Results

Individual Perceptions of Influence on Preferences

To provide context to our hypotheses, we assessed participants’ perceptions of the extent to which their judgments were influenced by the provided CEO resume (held constant across cells), the comparison compensation packages we provided (held constant across cells), and the advice of the compensation consultant (through which we varied both conflict of interest and package magnitude). As discussed, prior research suggests that participants receiving a CEO compensation recommendation from a consultant with a conflict of interest would perceive themselves to be less influenced by the recommendation than participants receiving recommendations from a consultant without a conflict of interest. To verify this, we conducted a 2 (CoI: conflict of interest vs. no conflict of interest) × 2 (MAGNITUDE: out-of-bounds vs. in-bounds) multivariate analysis of variance (MANOVA), with ratings of resume influence, comparison package influence, and consultant influence as the dependent variables. The multivariate main effect of CoI was significant, $F(3, 174) = 4.129$, $p < .01$, Wilks $\lambda = .934$. Turning to each of the variables potentially affected by CoI, univariate (ANOVA) results suggest that consultant conflict of interest did not have a significant effect on perceived resume influence, $F(1, 176) < 1$, $p > .05$. At the same time, consultant conflict of interest significantly related to the perceived influence of both the comparison package and the consultant recommendation, $F(1, 176) = 6.377$, $p < .05$, $\eta^2_p = .035$, and $F(1, 176) = 8.751$, $p < .01$, $\eta^2_p = .047$, respectively. The multivariate main effects of MAGNITUDE and the two-way interaction between CoI and MAGNITUDE were both nonsignificant, $F(3, 174) < 1.108$, $p > .05$, and $F(3, 174) < 1$, $p > .05$, respectively.

Although the mean perceived influence of the resume was not significantly different when receiving a recommendation from a conflicted consultant as opposed to a consultant without a conflict of interest (4.02 [$SD = 1.34$] vs. 3.93 [$SD = 1.40$]), the mean perceived influence of the comparator group is significantly greater when receiving a recommendation from a consultant with a conflict of interest as opposed to a consultant without a conflict of interest (5.41 [$SD = .90$] vs. 5.74 [$SD = .87$]). Furthermore, the average perceived influence of the consultant recommendation is significantly lower when the consultant has a conflict of interest (4.52 [$SD = 1.23$] vs. 3.69 [$SD = 1.62$]). Simultaneously, the perceived weight placed on the comparator group increases.

Overall Individual Package Preferences

To provide evidence on the actual (as opposed to perceived) influence of compensation consultant conflicts of interest and the magnitude of the consultant recommendation on individual preferences, we conducted a 2 (CoI: conflict of interest vs. no conflict of interest) × 2 (MAGNITUDE: out-of-bounds vs. in-bounds) ANOVA, with overall compensation package in dollars as the dependent variable. The estimated marginal means for CoI/out-of-bounds, CoI/in-bounds, no CoI/out-of-bounds, and no CoI/in-bounds were $18,741,004$ ($SD = 6,694,424$), $14,385,892$ ($SD = 3,466,937$), $21,860,020$ ($SD = 5,839,158$), and $16,002,551$ ($SD = 3,490,609$), respectively. This test found significant main effects on the influence of the consultant conflict of interest, $F(1, 176) = 7.199$, $p < .01$, $\eta^2_p = .039$, and the magnitude of the recommendation, $F(1, 176) = 39.706$, $p < .01$, $\eta^2_p = .184$. There was not a significant interaction between these variables, $F(1, 176) < 1$, $p > .05$. These findings support Hypotheses 1 and 2. Consistent with individuals adjusting for recommendations from a consultant with a known bias, as predicted in the first hypothesis, individuals prefer lower compensation when advised by a consultant with a conflict of interest. In addition, consistent with Hypothesis 2, results indicate that individuals assign higher value compensation packages when the advice of the consultant was higher. Most telling, the lack of a significant interaction between conflict of interest and the magnitude of the recommendation suggests that individuals do not jointly consider the potential bias and the magnitude of the recommendation. In fact, judgments appear
to be influenced by the consultant’s advice and then uniformly lowered by about 10% if the advice came from a consultant with a conflict of interest, regardless of the magnitude of the recommendation. This may reflect an anchoring and adjustment process on the part of the participants (Strack, & Mussweiler, 1997; Tversky & Kahneman, 1974).

To provide more insight into these findings, we also compared the control condition in which participants did not receive a recommendation from a consultant directly (\(M = $14,193,905, SD = $4,662,212\)) to both of the Col cells of the design (i.e., in-bounds and out-of-bounds). If participants completely discount the advice from consultants with a conflict of interest, regardless of the content of the advice, these comparisons should be nonsignificant. Although there was not a significant difference between the control condition and the Col/In-bounds cell, \(t(88) = .22, p > .05\), the Col/out-of-bounds cell significantly differed from the control condition, \(t(88) = 3.74, p < .01\), Cohen’s \(d = .79\). Similarly, the Col/In-bounds cell differed significantly from the Col/out-of-bounds cell, \(t(88) = 3.88, p < .01\), Cohen’s \(d = .82\). Together these findings indicate that the preferences of participants who received advice from a consultant with a conflict of interest were, at least in the case of lavish recommendations, influenced by that advice.

**Overall Individual Equity Preferences**

Prior research suggests a specific relation between the magnitude of the recommendation and the form of compensation. Agency theory suggests that firms must compensate managers for the uncertainty imposed on them by risky compensation elements, such as equity, which leads to higher pay (e.g., Aggarwal & Samwick, 1999; Jensen & Meckling, 1976; Lambert & Larcker, 1987; Smith & Watts, 1992). To the extent that participants understand this relationship and the overall paradigm of executive compensation, their recommendations should reflect this. As such, we would expect to observe a positive relation between the proportion of compensation in the form of equity grants and the magnitude of the compensation package.

To test this conjecture, we investigate the form of the compensation in relation to the conflict of interest and magnitude of the recommendation using a 2 (Col: conflict of interest vs. no conflict of interest) \(\times\) 2 (MAGNITUDE: out-of-bounds vs. in-bounds) ANOVA with the percentage of the compensation package to be given as equity as the dependent variable. We found no main effect for Col, \(F(1, 176) = 1.194, p > .05\), and a significant effect for MAGNITUDE, \(F(1, 176) = 7.140, p < .01, \eta^2_g = .039\). There was not a significant interaction between these variables, \(F(1, 176) < 1, p > .05\). When the recommendation was out-of-bounds, individuals preferred to assign more of the package as equity than when the recommendation was in-bounds. This finding suggests that the proportion of the compensation in the form of equity is positively related to the magnitude of the compensation, consistent with economic theory that the firm must compensate the agent for the risk of equity compensation. At the same time, the characteristics of the consultant or the magnitude of the recommendation did not significantly influence this relationship.

**Group Judgment**

As we have discussed, in situations in which a group judgment is called for, it cannot be assumed that the judgment reflects an unbiased aggregation of member preferences. Therefore, it was necessary to map the final group judgment to the pregroup preferences of group members to determine how group judgments were generated. We modeled group judgments as a function of initial member preferences to assess whether group judgments, relative to individual preferences, reflected lowballing (i.e., were indistinguishable from the lowest individual preference), centrality (i.e., were indistinguishable from the median individual preference), or were, for the sake of comparison, liberal (i.e., were indistinguishable from the highest individual preference). We also tested two parametric models of centrality: a simple arithmetic mean model as well as a weighted centrality model based on the assumption that as individuals’ preferences deviated more from the mean they would have exponentially less influence on group judgment (see Appendix C; Bonner, Gonzalez, & Sommer, 2004; Davis, 1996).

We compared the fit of the obtained data (i.e., group judgments in the context of member preferences) to each model. That is, each of the five models described was used to generate predic-
tions as to what the groups would decide at Time 2 (i.e., the interactive group phase) based on the preferences of group members at Time 1 (i.e., the pregroup phase). The fit of these predictions to the actual obtained group estimates was assessed using Kolmogorov–Smirnov one-sample tests. An alpha level of .20 is the standard for Kolmogorov–Smirnov tests involving group decision making and constitutes a conservative test of fit (e.g., Davis, 1996).

The results for the model fit tests for the control, Col/out-of-bounds, Col/in-bounds, no Col/out-of-bounds, no Col/in-bounds cells are presented in Table 1. For these tests, given sample size and alpha level, models that exceeded a discrepancy of 0.2763 (i.e., the $D_{crit}$) from the obtained cumulative relative data were rejected as implausible. The median model closely corresponded to the obtained group decisions and could not be rejected in any cell of the design, showing that group choices resembled the preference of the most central group member. This finding supports Hypothesis 3a and fails to support Hypothesis 3b. Essentially, when selecting an overall package level, we find that group choices resemble the preference of their median member in all cells of the experiment. It should also be noted that for two of the cells of the design (Col/out-of-bounds and no Col/in-bounds), both the simple arithmetic mean and weighted centrality models also provided adequate fit to the data. In the control condition, models assuming median and lowest member choices fit adequately (i.e., could not be distinguished).

An additional lens for examining the combination of quantitative member preferences to a group judgment involves assessing the extent to which the preferences of different members are predictive of the final group judgment, using a general linear model (GLM) approach (i.e., multiple regression). This approach, though not typical in the group-decision-making literature, adds context to the question of how member preferences map to group judgments, by showing which member preferences, or combinations thereof, are most predictive of the group outcome independent of theoretical assumptions beyond those inherent to regression. This constitutes a type of model-fitting procedure (Kerr, Stasser, & Davis, 1979) that complements the more classic a priori model-testing approach. Note that a classic model-testing approach that focuses on the fit of each member’s preferences to the group judgment and a GLM approach examine the issue of how member preferences map to group judgments from different perspectives. The former tests whether the group judgment is systematically proximal to the predictions of various models. The latter assesses which preferences or combinations of preferences are causal agents of the group judgment. For example, it may be that if the preference of the most conservative (lowest) member is relatively high, the final group judgment is much higher in general, even though that judgment is not numerically close to that of the driving member. Said differently, the model-testing method assesses the fit of member preferences to the group judgment, whereas the GLM model-fitting method assesses the variance accounted for by the preferences of the different members or the interactions of those preferences.

We therefore supplement our a priori model-testing approach with a model-fitting method. To do this, we regressed the preferences of the ranked members (ranked by the value of their preference for the total compensation package), as well as the interaction terms of these preferences to the group judgment, using a general linear model (GLM) approach (i.e., multiple regression). This approach, though not typical in the group-decision-making literature, adds context to the question of how member preferences map to group judgments, by showing which member preferences, or combinations thereof, are most predictive of the group outcome independent of theoretical assumptions beyond those inherent to regression. This constitutes a type of model-fitting procedure (Kerr, Stasser, & Davis, 1979) that complements the more classic a priori model-testing approach. Note that a classic model-testing approach that focuses on the fit of each member’s preferences to the group judgment and a GLM approach examine the issue of how member preferences map to group judgments from different perspectives. The former tests whether the group judgment is systematically proximal to the predictions of various models. The latter assesses which preferences or combinations of preferences are causal agents of the group judgment. For example, it may be that if the preference of the most conservative (lowest) member is relatively high, the final group judgment is much higher in general, even though that judgment is not numerically close to that of the driving member. Said differently, the model-testing method assesses the fit of member preferences to the group judgment, whereas the GLM model-fitting method assesses the variance accounted for by the preferences of the different members or the interactions of those preferences.

### Table 1

<table>
<thead>
<tr>
<th>Experimental condition</th>
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*Fail to reject at $\alpha = .20$.  

Note. $N = 15$ groups per cell. $D_{crit} = 0.2763$. 

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ences, on the final group total compensation judgment. We used a stepwise regression, initially entering the highest member preference, the median member preference, the lowest member preference, the three two-way interactions, and the three-way interaction. As with the model-testing approach, tests were conducted separately in each cell of the design. As Table 2 indicates, the group judgments within each cell were predicted by either a single predictor or a single interaction between predictors in each case. As the table indicates, in both of the experimental cells in which there was no apparent conflict of interest, it was the interaction between the median and lowest member preferences that predicted the final group judgment. This is similar to a “trimmed” model in which the highest member preferences are ignored in generating a group judgment and only the interaction between the lower two members has an impact. In contrast, in both cases in which a conflict of interest is suggested, the highest member preference influences the final group judgment either alone, in the case of an in-bounds recommendation, or in a three-way interaction with the preferences of the other group members, in the case of the out-of-bounds recommendation.

Overall Group Package Judgments

Our examination of member preferences shows that group judgments closely correspond to the median of member preferences. That is, the judgments of groups reflect the preferences of average group members. It follows then that group judgments should adhere to the same pattern as the preferences of individuals, albeit with less statistical power. To verify this, we repeated our individual-level test pertaining to member compensation preferences at the group level with final group judgments as the dependent measure. To assess overall group judgments with regard to CEO compensation, we performed a 2 (Col: conflict of interest vs. no conflict of interest) by 2 (MAGNITUDE: out-of-bounds vs. in-bounds) ANOVA, with the groups’ judgment on overall compensation package in dollars as the dependent variable. This test found main effects for both independent variables, $F(1, 56) = 5.276, p < .05, \eta^2 = .086$, and $F(1, 56) = 22.925, p < .01, \eta^2 = .290$, respectively. There was no interaction between these variables, $F(1, 56) < 1, p > .05$. The estimated marginal means for Col/out-of-bounds, Col/in-bounds, no Col/out-of-bounds, and no Col/in-bounds were $15,843,333 (SD = 2,469,880)$, $14,766,667 (SD = 2,658,320)$, $21,517,061 (SD = 4,859,254)$, and $18,216,667 (SD = 4,205,509)$, respectively. Groups chose to provide higher compensation when the advice of the consultant was out of bounds (high) and also when the consultant did not have a conflict of interest. Thus, judgments were influenced by the consultant’s advice and lowered if the advice was biased. Overall, group judgments regarding the overall compensation package mirrored those of the median member.

Overall Group Equity Judgments

To parallel our individual-level analysis, we also assessed group judgments with regard to CEO equity compensation. We performed a 2 (Col: conflict of interest vs. no conflict of interest) by 2 (MAGNITUDE: out-of-bounds vs. in-bounds) ANOVA with the percentage of the compensation package to be given as equity as the dependent variable. We found no main effect for Col, $F(1, 56) = 1.490, p > .05$, and a significant effect for MAGNITUDE, $F(1, 56) = 8.961, p < .05$. The estimated marginal means for Col/in-bounds, Col/out-of-bounds, no Col/in-bounds, and no Col/out-of-bounds were $31.65 (SD = 12.19)$, $35.36 (SD = 14.23)$, $36.84 (SD = 13.86)$, and $34.21 (SD = 13.48)$, respectively. Groups chose to provide higher equity when the advice of the consultant was in bounds (high) and also when the consultant did not have a conflict of interest. Thus, judgments were influenced by the consultant’s advice and lowered if the advice was biased. Overall, group judgments regarding the overall compensation package mirrored those of the median member.

Table 2

<table>
<thead>
<tr>
<th>Experimental condition</th>
<th>Variables retained in stepwise regression</th>
<th>$\beta$</th>
<th>$t$</th>
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<tr>
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<td>Lowest/Median/Highest interaction</td>
<td>.76</td>
<td>4.23</td>
</tr>
<tr>
<td>No Col/In-bounds</td>
<td>Lowest/Median interaction</td>
<td>.84</td>
<td>5.58</td>
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<tr>
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<td>Lowest/Median interaction</td>
<td>.77</td>
<td>3.61</td>
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</table>

Note. $N = 15$ groups per cell. All tests significant at $\alpha < .01$. 

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7.857, p < .01, \eta^2_p = .123. There was no interaction between these variables, F(1, 56) < 1, p > .05. When the recommendation was out of bounds, groups wanted to assign more of the package as equity, consistent with what we found on the individual level.

Discussion

Group judgment is used for a wide variety of purposes in organizations. Importantly, groups are typically the vehicles for determining how executive officers (e.g., CEOs) are compensated. In the current study, we provide evidence on how the group decision-making context shapes executive compensation and, theoretically, similar decisions. We first examined participants’ self-reports of the extent to which they were influenced by different information about a potential CEO hire. We found that participants self-reported that a compensation consultant’s conflict of interest influenced how they used that person’s advice. Participants in experimental cells in which advice came from consultants with a conflict of interest believed that they were influenced by the consultant recommendation less than comparison participants in unconflicted conditions. In addition, participants receiving advice from conflicted compensation consultants self-reported that objective information about peer compensation packages (identical for all groups) influenced their recommendations more than those in the unconflicted conditions.

Our results indicate that a conflict of interest in a hypothetical compensation consultant scenario influences the pay preferences of individual decision makers as well as the group’s final judgment. We do not find that decision makers adequately adjust for potential bias. Specifically, participants in conditions in which the consultant recommended higher pay and also had a conflict of interest compensated the CEO significantly more than participants without a consultant. Thus, there is evidence that the advice received anchored CEO pay to be higher despite the advisor’s potential for bias. Interestingly, participants self-reported that they considered other factors, such as peer CEO compensation, more, and placed less weight on the consultant recommendations when the consultant had a conflict of interest. Together, these findings suggest that compensation committee members may perceive their ability to screen out potentially biased information to be greater than it actually is when biased sources provide extravagant recommendations (Cain et al., 2005). This is, of course, precisely the problem identified in CEO compensation (Waxman, 2007)—that biased consultants inflate their recommendations to curry favor with incoming executives, and compensation committees are not correcting for it.

When examining compensation preferences, we found that participants preferred greater CEO pay levels when the compensation consultant recommended higher pay. However, participants in the conflicted consultant condition preferred lower pay than participants in the nonconflicted condition. More specifically, regardless of the level of pay advised by the consultant, participants that receive advice from a conflicted consultant preferred pay levels that are approximately 10% less than participants that received the same advice from a consultant without a conflict of interest. Participants adjusted their preferences to the same degree regardless of the magnitude of the advice. That is, participants preferred to compensate the CEO more lavishly when the consultant recommended greater pay, regardless of the consultant’s potential conflict of interest, when compared with both the control (no consultant recommendation) and when the consultant recommends less pay. This finding has broad implications and suggests that, at least in certain situations, negative perceptions of an advisor and the fairness of the advisor’s advice are processed additively rather than multiplicatively.

We also considered the form of pay. A fundamental premise of agency theory is that payees demand a risk premium for compensation in the form of equity and other risky payments. We held the consultant advice with regard to the form of pay constant across all groups to 5% of the total compensation in the form of salary, 15% as performance-contingent bonus, and 80% in the form of equity. This distribution of compensation mix is consistent with the mean distributions of the peer group provided in the materials. Despite this uniform distribution across all groups, we found the proportion of total compensation in the form of equity increased when our participants prefer to pay the CEO more. This is consistent with decision makers compensating more highly when imposing greater risk on the manager, and individuals discounting risky payments (e.g., Hodge, Rajgopal, & Shevlin, 2010), and can be taken as
We examined how member preferences were aggregated into group judgments. Our results indicate that the deficits in the decision making of groups are directly carried over from the biased preferences of individual group members. Member biases were neither remedied nor exaggerated through the group decision-making process. This implies that interventions and attempts to improve the ability of compensation committees and similar bodies to render unbiased preferences should be managed at the individual level and would then be expected to propagate to the group.

A model-fitting procedure showed that in the absence of bias, the highest of member preferences were functionally ignored in generating a final group judgment. This may imply that in generating their judgment in an unbiased circumstance, problem solvers looked to the lower group estimates to determine how best to form their final judgment. However, when bias was apparent, the highest of member preferences were influential in informing the group judgment, likely by setting limits to what might be considered reasonable by the group. Also interesting is that when bias was apparent and the received recommendation was also out of the bounds of the provided comparisons, the factor that predicted the group judgment was the full three-way interaction of all members’ preferences. This may indicate that this condition spurred group members to collaborate such that all member inputs were respected and the final judgment reflected the thoughtful synthesis of all member preferences.

In interpreting our research, a number of limitations must be acknowledged. First, the current research used an unusual approach for investigating the well-researched phenomenon of executive compensation by choosing an experimental method. We see this as a strength of the research, in that it allowed us to get at parts of the question of how executive compensation is decided that prior work using archival methods could not easily assess. For all its many strengths, archival research can only infer the relation between compensation consultant conflicts of interest and their recommendation from observed CEO compensation schemes. That is, archival searches for biased recommendations are based on realized pay levels because the recommendation provided by the consultant is not publicly available. This results in multiple, uncertain interpretations of the situation.

For example, one possibility is that conflicted compensation consultants recommend that firms compensate the CEO more richly, and compensation committees adjust for the consultants’ conflicts of interest. Such an adjustment might involve discounting the advice, taking the advice and adjusting based on its content (e.g., discounting more lavish recommendations at a steeper rate relative to more modest recommendations), or taking the advice and then adjusting for the possible bias without respect to its content (e.g., recommendations from a potentially biased source are assumed to be too high, so the ultimate decision as to compensation should be uniformly lower). Importantly, extant research does not offer insight into how executive compensation committees might manage the advice they receive from compensation consultants (cf., Gino et al., 2012). Further, because groups, not individuals, make compensation decisions, archival research cannot rule out the possibility that the group consensus process itself introduces other biases into the process (e.g., group polarization; Moscovici & Zavalloni, 1969), or improves upon the contributions of individuals by correcting individuals’ misperceptions or errors (Hinsz et al., 1997; Shaw, 1932). As noted, the current research addresses these issues and offers evidence that potential conflicts of interest on the part of a consultant do affect both individual preference and group judgment, but independent of the magnitude of the recommendation. In addition, groups do not appear to correct for this possible oversight.

Our goal with regard to our methodological choice was to maximize internal validity (i.e., the ability to infer causality) and examine variables that might not be feasible using standard archival methods (specifically, the relationship between consultant advice and group judgments). We see the current research as a complement to the extent archival research on executive compensation, which, though high in generalizability, is not designed to assess a number of process issues. Because we used an artificial laboratory approach, along with a hypothetical choice scenario without real-world consequences, the generalizability of our findings is questionable. Further work with an appropriate field sample is called for to support or refute our findings. Similarly, our choice to use
MBA students rather than to select participants specifically for their executive compensation experience may likewise be a limiting factor (although it should be noted that board members who make executive compensation decisions do not receive special training). Importantly, although we believe the type of information we provided to decision makers in the current study to be typical of those provided for the purpose of compensation decisions, real committees making compensation decisions in actual organizations could gather more or different information on executive candidates than we provided.

In closing, our findings contribute to a broad stream of literature on how individuals and groups use information provided by a potentially biased source. At the same time, our results are consistent with economic predictions such as Akerlof (1976) and Stein (1989), in which information providers recognize that users will adjust for the perceived bias such that the provider must supply a biased recommendation to achieve the “correct” outcome. This signal-jamming framework reconciles our findings with those from the archival work that do not find a relation between compensation consultant conflicts of interest and CEO compensation levels (Cadman et al., 2010; Murphy & Sandino, 2010). That is, consultants either (a) do not act strategically, or (b) recommend higher pay and committees rationally adjust sufficiently (consistent with a signal jamming model as in Stein, 1989). Regardless of the mechanism, our results suggest that decision makers, when informed of a conflict of interest, may adjust for this perception when considering the recommendation of the advisor, even if insufficiently.

References


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EXECUTIVE COMPENSATION

Murphy, K., & Sandino, T. (2010). Executive pay

(Appendices follow)
Appendix A

Abridged CEO Resume

Geddy Neilson
98 Limerick Dr. Syracuse, NY 15065
Office: (315) 123–4567/Fax: (315) 123–4568
Cell Phone: 315–123-4569
E-Mail: Neilsongd@yahoo.com

EDUCATION:
1984–1986 Columbia University, New York, NY
Master of Business Administration
1976-1980, Boston College, Chestnut Hill, MA
Bachelor of Science Degree
Majored in Economics, Summa cum Laude

WORK EXPERIENCE:
2004-present President and Chief Executive Officer, Turnbuckle Technologies, International; President, Turnbuckle Technologies, Inc.; President, SecureFit Automation, President, Turnbuckle Technologies, Ltd and Silgel Packaging Co. Ltd.; President, Eagle Chemical Company

Turnbuckle International is a holding company consisting of manufacturing operations in Syracuse, New York; Ithaca, New York; Mobile, Alabama and Warrington, U.K. and Telford, U.K. Turnbuckle is a world leader in the design, development production and marketing of high quality packaged and fabricated sorbents for controlling constrained environments. Products are sold and distributed world-wide and are utilized in the automotive, pharmaceutical, electronics, medical diagnostic, spill control, general packaging, food packaging, plastics and resins and consumer products. Annual sales are $320 million, with 4,100 employees worldwide.

2001–2004 President, Communication Solutions, LLC, Communication Solutions is a specialty consulting and Internet Technology Development firm with a concentration in the health care industry. Engaged in business development strategies, strategic planning, workplace redesign, risk management, quality improvement and corporate reengineering. Success factors include increasing corporate clients’ market penetration and market share, resource utilization, and internal operating efficiencies. Former clients include: Massachusetts General Hospital; Long Island Eye Ear and Throat Hospital; Triplex Technologies; Turnbuckle Technologies; The American Rehabilitation Hospital; SoloCraft Corporation; and Johnson Screw Products, Inc.

1998–2001 President/CEO, TFC Consulting, Responsible for overseeing and directing all of the activities of the corporation including, TFC Group, Inc., TFC Foundation, Inc.; TFC Services Corporation and Moonlight, Inc. TFC Consulting is the regional Consulting center for Upstate New York. TFC offers a full range of consulting services.

1986–1998 President/CEO, Epiphone Technologies Responsible for overseeing and directing all of the activities of the Epiphone Technologies. Epiphone Technologies consists of 800 employees with an annual operating budget of 96 million dollars.

Honors and Awards
• Brady Fellowship – 2007
• Honoree at the Davis Foundation Award Night for Superior Management – 2006
• Honorary Doctorate From William’s College – 2005
• Fortune 500 top Rising Stars in the Corporate World – 2002
Appendix B

Comparison Realized Compensation Packages

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</table>

Note. These data represent realized compensation packages over the prior year from other publicly traded firms of comparable sales revenue within the same two-digit standard industrial classification code. Granted compensation packages in the previous year amounted to the values provided in the table. Equity grant values are based on the fair market value at the time of the grant.

Appendix C

Social Judgment Models

Assume that group decisions (Gi) are weighted sums of r individual preferences on i problems, denoted xi,j. Further, let ci,j denote the weight of the jth member on the ith problem, with the sum of all ci,j totaling 1, or, Gi = c1,jx1,i + c2,jx2,i + ... + cr,jxr,i. The centrality equation (Bonner et al., 2004) is defined as

\[ c_{ij} = \frac{e^{-|Z_{ij}|}}{\sum_{j=1}^{r} e^{-|Z_{ij}|}} \]

where \( Z_{ij} \) is a standardized value that reflects distance from the intragroup average, \( \left( \frac{x_{ij} - \text{intragroup mean}}{\text{intragroup standard deviation}} \right) \) and e represents the natural log e.

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