Worth the Effort? The Effects of Task-Centrality, Annoyance, and Arrogance on Manager Effort Allocation During Feedback-Seeking Episodes

by

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Author’s Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.
Abstract

Employees seek feedback from managers to reduce work-related ambiguity. However, managers typically have other competing demands on their time, and as such, may not allocate sufficient effort to providing feedback. To this end, the purpose of the current study is to investigate the feedback-seeking process from the manager’s perspective. Specifically, we draw on self-regulatory theories to explain how managers balance providing feedback with other work demands. We predicted that the perception of providing feedback as a central task in one’s role as a manager would be positively related to effort allocated to delivering feedback. Furthermore, we expected annoyance to mediate this relationship. However, we did not expect the effect of task centrality on annoyance to be uniform across all managers. Instead, we predicted the relationship between task centrality and annoyance would be strongest for managers who are highly arrogant, relative to their less arrogant counterparts. We tested our predictions using a multi-wave, correlational study. Managers (N=187) reflected on a recent feedback episode, and completed self-report measures of annoyance, arrogance, task centrality, and effort. As predicted, there was a significant positive relationship between task centrality and effort. Additionally, annoyance mediated task centrality and effort. Although the focal analyses did not support arrogance as a moderator for task centrality and annoyance, supplemental analyses revealed that arrogance was associated with less effort allocated to delivering feedback, and that this effect was mediated by task centrality perceptions. The theoretical and practical implications of our findings as well as future research directions will be discussed.

Keywords: Feedback-seeking, effort, feedback-source, job performance
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Introduction

Workplaces are often characterized by ambiguity. Indeed, unclear performance expectations, ill-defined tasks, and vague work responsibilities generate uncertainty amongst employees regarding how to be effective in one’s role (Morrison, 2002). Thus, employees seek feedback as a means of reducing work-related ambiguity (Ashford et al., 2016; Morrison & Vancouver, 2000). Feedback is defined as information regarding one’s task performance (Kluger & DeNisi, 1996). Previous feedback-seeking research has emphasized the feedback seeker’s perspective (Anseel et al., 2015; Ashford et al., 2003, 2016). For instance, much is known about who seeks feedback (Krasman, 2010), when they seek feedback (Anseel et al., 2015), and why they seek feedback (Ashford et al., 2003). However, relatively little is known about the feedback-seeking process from the feedback source’s perspective (c.f., Lam et al., 2007; Minnikin et al., in press). This oversight is important to address because the feedback source’s behaviour is likely to influence the quality of the feedback that is received.

Importantly, feedback at work is often sought from managers (Budworth et al., 2018). However, like all employees, managers have many competing demands on their limited time and attention (Schmidt & DeShon, 2007), meaning managers may not allocate sufficient effort towards delivering feedback. As a result, the feedback provided may suffer in terms of quality, and be less effective in helping the recipient improve their future work performance (Gong et al., 2017). To this end, the purpose of the current research is to understand managers’ feedback perspective and in particular, the antecedents of effort allocated towards providing feedback. To examine this perspective, we adopt a self-regulatory approach.

Self-regulatory theories are useful in explaining how goals are prioritized and how attentional resources are allocated towards such goals (Ballard et al., 2016; Neal et al., 2017). In
particular, a central tenet of self-regulatory theory is that goals are prioritized according to importance (Vancouver et al., 2010). As such, being asked to provide feedback requires the manager to evaluate the importance of this task compared to other tasks and allocate managers’ resources accordingly. The importance of providing feedback is determined by the centrality of a given task. Task centrality is defined as the degree to which the current task is perceived as a critical responsibility in one’s role at work (Rosen, 2019). Further, the more central a task is perceived as being, the greater the evaluation of the tasks’ importance, and thus, the more resources (e.g., effort) are allocated to such task. Along these lines, we argue that the degree to which providing feedback to subordinates is perceived as a central task in one’s role as a manager will predict the effort that is allocated to delivering such feedback. To this end, we expect that managers who perceive providing feedback to be a highly central task will likely allocate more effort towards feedback delivery than managers who perceive providing feedback as a less central task.

More so, we expect the relationship between task centrality and effort to be mediated by annoyance. Annoyance is defined as a high activation, negatively valanced emotional state that is characterized by feelings of irritation and frustration (Russell, 1980; Speilberger et al., 1983). Indeed, we expect that managers may experience annoyance when they are unable to meet their central goals at work. For instance, when providing feedback, managers must divert resources from their other goals. In particular, diverting resources towards a new goal (e.g., delivering feedback) may come at the expense of making progress on other goals (Schmidt & Dollis, 2009; Schmidt et al., 2009). Moreover, slowed progress often elicits negative emotions (Baethge & Rigotti, 2013; Beck et al., 2017; Puranik et al., 2020; Sonnentag et al., 2018). For managers who perceive feedback to be highly central to their role, providing feedback may in turn represent
goal progress, meaning requests for feedback may be less likely to evoke annoyance in managers. This reaction is because the resources devoted to providing feedback are regarded as contributing to achieving one’s overall managerial goals. Conversely, managers who perceive providing feedback as outside the scope of primary role responsibilities, may become annoyed at such requests as giving feedback may be perceived as hindering progress on their other work goals. Downstream, we expect annoyance to negatively predict the effort that is allocated to delivering feedback. Specifically, managers who are more annoyed will allocate less effort towards providing feedback to their subordinate compared to their less annoyed counterparts.

Yet, we do not expect the effect of task centrality on annoyance to be uniform across all managers. Specifically, we anticipate this effect to be particularly strong among highly arrogant managers. Arrogance is defined as an individual’s inflated sense of self-importance, and tendency to engage in behaviours that convey an exaggerated belief of superiority (Borden et al., 2018; Johnson et al., 2010). Therefore, we suggest highly arrogant managers will be annoyed by requests for feedback because they feel their attentional resources are better spent on tasks pertaining to themselves and their personal goals. Further, we expect highly arrogant managers to be annoyed by requests for feedback even more so to the extent that they view providing feedback as a less central task in their role as a manager. To this end, we propose that arrogance will moderate the relationship between task centrality and annoyance. Indeed, this negative relationship is expected to be strongest when a manager is highly arrogant verses less arrogant.

We tested our predictions using a multi-wave, correlational study. We recruited current full-time managers using Amazon Mechanical Turk and asked the managers to reflect on a recent feedback episode between themselves and a subordinate. Data were collected across four separate time points to reduce common method variance (Podsakoff et al., 2003). In addition to
reporting on a recent feedback episode, managers completed self-report measures of arrogance, task centrality, annoyance, and effort towards delivering feedback. Altogether, the current research makes several important contributions to the feedback-seeking literature. First, by considering the managerial perspective we address the overlooked role of the feedback source within feedback-seeking literature and offer insight into the mechanics of the feedback-seeking process. Second, by adopting a self-regulatory perspective, we identify the antecedents of the amount of effort that managers allocate towards providing feedback. Finally, because high-quality feedback requires effort, our findings can be used to better understand effective feedback delivery.

**Feedback Requires Effort**

To date, the feedback-seeking literature has primarily focused on the determinants of high-quality feedback. Indeed, this research has found that task-specific, timely feedback delivered sensitively is better received by feedback seekers, such that seekers are more likely to act upon the feedback (e.g., to improve job performance) (Dahling et al., 2012; Steelman et al., 2004; Whitaker & Levy, 2012). Thus, research conducted to date provides a great deal of information about what feedback sources *should do* when delivering feedback. However, the feedback literature offers relatively little guidance regarding what feedback sources *will do* when delivering feedback. That is, delivering high-quality feedback requires the feedback source to allocate considerable effort, which includes time, energy, and attention. For instance, to give high-quality feedback the source must evaluate task-relevant behaviour, generate recollections of previous performance, and convey this information to the feedback-seeker; all of which require the source’s time, energy, and attention (collectively effort). Importantly, employees typically seek feedback from their manager, making managers the primary source of feedback at work.
(Nifadkar et al., 2012). In addition to providing feedback, managers likely have other competing work demands such as creating employee work schedules, overseeing project outcomes, and maintaining organizational financial records. However, resources like time and energy required to complete tasks are limited. Therefore, we suggest that competing demands may not allow managers to allocate the amount of effort necessary to providing their subordinates with high-quality feedback.

Despite the essential role that feedback sources play in feedback exchanges; relatively little research has investigated the feedback sources’ perspective during the feedback-seeking process. There are, however, two notable exceptions. In particular, Lam et al. (2007) investigated supervisors’ attributions of subordinates’ motives for seeking feedback. Lam and colleagues found that the feedback-seeking motive supervisors attributed to their subordinate (performance enhancement motive verses impression management motive) impacted the quality of the supervisor-subordinate relationship (e.g., LMX) and subordinate work performance. This research highlights the influence of supervisors’ perceptions on outcomes of feedback-seeking. Likewise, Minnikin and colleagues (in press) found that the effort feedback sources allocated towards giving feedback was determined based on the sources’ perception of the feedback seekers’ motives for seeking feedback. In particular, subordinates’ instrumental motives were positively related to effort allocation, whereas subordinates’ image enhancement motives were negatively related to the effort managers allocated to delivering feedback. Importantly, the findings from Minnikin and colleagues (in press) provide initial evidence that managers vary the amount of effort they allocate towards providing their subordinates with feedback.

These papers advance our understanding of sources’ experiences during feedback exchanges and the implications of these experiences on feedback-seeking outcomes (by Lam et
al. (2007) and Minnikin et al. (in press)). In contrast, in the current paper we turn our attention towards the effects of managerial characteristics on subsequent effort allocation towards feedback delivery. The present study aims to identify critical individual differences and affective factors amongst managers that are antecedents of the effort managers allocate towards providing their subordinates with feedback. To this end, we draw on self-regulatory theories to examine the sources’ perspective during feedback episodes and explain how managers regulate their effort towards providing feedback.

**A Self-Regulatory Approach to Feedback**

Self-regulation is understood as a process of striving to achieve goals (Neal et al., 2017). Importantly, goals serve as a guide for ones’ resources such as effort (Johnson et al., 2013). Indeed, a core assumption of self-regulatory theories is that resources are allocated as a means of attaining goals (Lord et al., 2010; Schmidt & DeShon, 2007; Vancouver et al., 2010). Allocating resources during goal pursuit is best understood in terms of a feedback loop. The feedback loop compares what one has currently achieved (ones’ current state; perception of current performance) to what one hopes to achieve (end state; desired goal). An individual determines if there is a discrepancy between what they have accomplished verses what they want to accomplish. Importantly, discrepancies between one’s current and end state motivate a behavioural response towards reducing the discrepancy, such as exerting effort for task performance (Lord & Levy, 1994; Schmidt & Dolis, 2009; Vancouver et al., 2010).

In the same way, the loop may be applied to managers providing feedback to their subordinates. In particular, a subordinate that sought feedback generates a new goal to which the manager must attend. The goal to give feedback represents the end state and is compared to the manager’s current state of having yet to give feedback. To reduce the discrepancy between the
two states, managers can employ their effort towards delivering feedback thereby accomplishing this goal.

However, the multifaceted nature of managerial roles means managers are required to pursue other organizational goals in addition to providing feedback (Lord et al., 2010; Rosen et al., 2019). For example, managers may manage daily email demands such as reading and replying to email communications (Rosen et al., 2019) or responding to subordinates help requests for personal (Lanaj & Jennings, 2019) and task-related problems (Lanaj et al., 2016). Further, other work goals are often in conflict with giving feedback because they all draw from the same pool of limited resources. Thus, managers are unable to maximally allocate resources across all managerial demands. Therefore, managers faced with multiple conflicting tasks may have to prioritize and devote resources to accomplish one task over another.

Self-regulatory theories tell us that individuals prioritize goals based on goal importance (Ashford & Northcraft, 2003; Shah et al., 2002; Vancouver et al., 2010). Indeed, multiple-task pursuit research suggests individuals prioritize tasks by comparing the relative importance of each task (Ballard et al., 2016). For instance, individuals may prioritize competing goals based on their goal performance discrepancy (GDP) or their distance from goal completion (Unsworth et al., 2014). Schmidt and DeShon (2007) support this notion as they established that when faced with multiple competing goals, participants devoted more resources towards whichever goal was furthest from completion. In addition, Schmidt and Dolis (2009) demonstrated that if individuals perceived a high likelihood of achieving multiple goals, resources were allocated towards the goal that was experiencing the larger discrepancy.

Moreover, the incentives associated with goal attainment also can be used to indicate goal importance. For example, Schmidt and DeShon (2007) investigated differences in goal
performance incentives as predictors of subsequent resource allocation during goal pursuit. In particular, goal discrepancies on rewarded tasks increased focus and motivated greater resource allocation than unrewarded tasks (Schmidt & DeShon, 2007). Additionally, Sun and colleagues (2014) found that goals associated with larger incentives motivated greater effort allocation towards reaching the goal. To this end, goal pursuit research has highlighted distance from completion and goal incentives as two means by which individuals prioritize work tasks.

**Task Centrality Predicts Goal Prioritization and Effort Allocation**

Regarding providing feedback, managers may prioritize doing so based on their role responsibilities at work. Indeed, some work goals are prioritized according to task centrality or the extent that the current task is viewed as critical to fulfilling ones’ primary work duties. Thus, we expect managers will evaluate how central providing feedback is relative to their other managerial tasks. In turn, managers may prioritize giving feedback, if feedback delivery is perceived as a highly central task rather than a less central or secondary work task. Importantly, there is evidence to suggest that managers prioritize highly central tasks at work. Indeed, Sherf and colleagues (2019) found that when personal resources were limited (e.g., due to large workloads) managers prioritized primary technical tasks that reflected their core organizational responsibilities over tasks that were considered less primary. To this end, task centrality may indicate which tasks managers will prioritize.

As a result, task centrality may determine the effort managers allocate towards feedback delivery. For instance, the motivational effect of a discrepancy between ones’ current and desired state can be influenced by how important the task is. Indeed, highly important goals elicit a stronger reaction towards reducing goal discrepancy and result in greater allocation of resources to achieve the goal (Vancouver et al., 2010). Therefore, we argue the degree to which providing
feedback is perceived to be a central task within ones’ role as a manager will predict how managers will prioritize giving feedback verses other work demands and how managers allocate effort accordingly. In particular, the greater the perception that providing feedback is a central managerial task, the more effort managers will allocate towards delivering feedback.

To this end, we hypothesize:

**Hypothesis 1**: The degree to which a manager perceives providing feedback to be central to their role as a manager will be positively related to the amount of effort the manager will allocate towards feedback delivery.

*Annoyance Mediates the Relationship Between Task Centrality and Effort*

Importantly, the effort that managers allocate towards providing feedback may come at the expense of making progress on managers’ other work goals. Indeed, due to the limited nature of resources, any resources enacted towards one task inevitably depletes those needed for other competing tasks (Ashford & Northcraft, 2003). This depletion is because, the resources that are invested in pursuit of the focal goal leave fewer resources available for pursuing secondary goals, thus compromising secondary-goal progress. Therefore, to pursue high-quality feedback delivery, managers may need to divert their effort away from competing managerial tasks resulting in slower goal progress on these tasks.

Managers are expected to be sensitive to their goal progress. Experiencing slow goal progress may evoke an emotional response. Indeed, the speed at which one makes progress on a goal (e.g., velocity) can result in affective reactions that impact goal striving behaviour (Beck et al., 2017; Koopman et al., 2016; Rosen et al., 2019). In particular, research has demonstrated that slowed goal progress can lead to negative affect (Baethge & Rigotti, 2013; Beck et al., 2017; Puranik et al., 2020; Sonnentag et al., 2018). Johnson and colleagues review of the literature on velocity and goal progress (2013) found a negative relationship between velocity and negative
affect, such that slower goal progress elicited more intense negative emotions. Moreover, several negative affective states can result from slowed goal progress. For instance, Beck and colleagues demonstrated that disturbances experienced during goal pursuit led to feelings of frustration. Likewise, Baethge and Rigotti found that work interruptions hindered progress on the primary work task and resulted in irritation. Finally, Sonnentag and colleagues demonstrated that perceived interruptions that halt one’s progress on their current task increased negative affect such as distress and irritation. Taken together, these papers illustrate that slowed goal progress is related to similar affective states that are characterized by high activation and negative valance.

In this paper, we label this general assemblage of negative emotions as “annoyance”. To this end, we expect managers will be annoyed by velocity disturbances that result from having to put their effort into providing feedback over pursuing other more important work tasks.

However, the extent to which a manager is annoyed by allocating effort towards feedback delivery may depend on how they perceive this task in relation to their goals. That is, managers may view providing feedback as a task that either hinders or contributes to work goal progress. For instance, if providing feedback is seen as a highly central task in one’s role as a manager then devoting effort towards feedback delivery contributes to their overall goals. Conversely, if providing feedback is seen as a less central task as a manager, then committing effort to this task may be perceived to hinder the progress on other more important managerial activities.

Accordingly, we expect task centrality to be related to annoyance such that, perceptions of how central of a task providing feedback is in one’s managerial role will influence the degree to which managers are annoyed by a subordinate’s request for feedback. In particular, if providing feedback is viewed as a less central task managers will be more annoyed by the feedback request compared to managers that view providing feedback as a more central managerial task.
Importantly, being annoyed likely has downstream implications for managers’ behaviours, such as the amount of effort managers exert towards providing feedback. In particular, negative emotions have been associated with goal avoidance behaviours (Seibt et al., 2008). For instance, negative affect caused by slowed velocity during goal pursuit can lead to task disengagement through reduced attention or lowered goals (Eicker et al., 2010; Richard & Diefendorf, 2011). Indeed, negative affective states redirect focus away from the primary task towards managing the current emotional experience (Beal et al., 2005; Puranik et al., 2020). However, engaging in emotional regulation serves as a regulatory demand that depletes one’s resources like time, effort, and attention that are also needed to pursue work tasks (Muraven & Baumeister, 2000). Thus, in attempts to manage their annoyance, managers may further deplete the amount of effort available to allocate towards providing high-quality feedback to their subordinates. Therefore, we argue that annoyance will be related to the amount of effort managers allocate towards feedback delivery such that, the more annoyed the manager is the less effort they will use to give their subordinates feedback.

To this end, we argue for the negative relationship between perceptions of providing feedback as a central task on annoyance and negative relationship of annoyance on the amount of effort put towards giving feedback. Taken together, we suggest annoyance will act as a mediator of the relationship between perceptions of the task centrality of giving feedback and the effort that managers will allocate towards feedback delivery. In sum, we hypothesize:

*Hypothesis 2*: The relationship between perceived task centrality of providing feedback and the amount of effort managers allocate towards feedback will be mediated by annoyance.
Manager Arrogance Moderates the Relationship Between Task Centrality and Annoyance

Finally, we expect the relationship between task centrality and annoyance will vary across managers. Importantly, individual differences amongst managers exist that likely result in variation in managers’ annoyance. For instance, manager’s arrogance may affect this relationship. Specifically, some managers may be highly arrogant and as such, view themselves as being too important to spend their time helping colleagues, placing their personal agenda ahead of the goals of others (Johnson et al., 2010). Further, arrogant leaders tend to engage in fewer behaviours they consider to be outside the scope of their job responsibilities and are less likely to participate in activities that would develop their employees (e.g., giving feedback) (Borden et al., 2018; Silverman & Johnson, 2012). Therefore, when considering feedback delivery, we suggest managerial arrogance will influence the effect of task centrality on annoyance. Specifically, arrogance is expected to strengthen the relationship between perceptions of feedback being a central managerial task and annoyance. For instance, highly arrogant managers that perceive providing feedback as a less central managerial task are expected to be more annoyed by having to provide feedback compared to managers that are less arrogant. Indeed, because arrogant managers believe their effort is better spent on tasks directly pertaining to their work goals, having to allocate effort towards an unimportant goal such as feedback delivery likely increases this affective response. To this end, we predict that the relationship between task centrality and annoyance will be stronger for highly arrogant managers relative to less arrogant managers and that this relationship will affect effort allocation towards giving feedback downstream. Therefore, we hypothesize:

Hypothesis 3: The relationship between the perceived task centrality of providing feedback and annoyance will be moderated by arrogance. This relationship will be strongest for highly arrogant managers and weakest for less arrogant managers.
Hypothesis 4: The positive indirect effect of perceived task centrality of providing feedback on the amount of effort managers allocate towards delivering feedback via annoyance will be moderated by arrogance.
**Method**

**Participants**

We recruited individuals from Amazon Mechanical Turk (MTurk). To be eligible for the study, participants had to be U.S. residents over the age of 18 and currently employed as a manager. In addition, to help filter out careless responding based on previous MTurk HITs, we included only participants with a 95% approval rate on MTurk, and 500+ HITS completed. At the beginning of the study, individuals completed six screening questions to filter out non-human (i.e., “bot”) responses and determine eligibility. We invited 300 participants to complete four separate surveys over the course of two consecutive work weeks. Of the 300 participants invited, 195 completed all four waves of this study (retention rate = 65%). We excluded an additional 12 participants based on duplicate responses and failed attention checks (Cheung et al., 2017; Meade & Craig, 2012). The final sample consisted of 187 individuals who were primarily male (55%), White (76%), and had a mean age of 35 years ($SD = 10.35$). Participants were paid $0.50 USD for completing each survey, and $2.00 USD bonus if they completed all four surveys.

**Procedure**

Data were collected across four time points spanning two consecutive work weeks (Tuesday, Friday, Monday, and Thursday). Separation of measurement periods was done to reduce the potential for inflated relationships among observations due to common method variance (Podsakoff, et al., 2003). Survey 1 was administered on Tuesday. During this survey, participants first responded to screening questions that determined their eligibility to participate in our study using the following items: “What colour are the objects in the pictures below?”, “What is the name of this vegetable?”, and “Are you currently a manager at work?” Next, eligible participants completed the measure of arrogance. Finally, during this survey we collected
participants’ demographic information (age, race/ethnicity, gender, education level, and employment experience).

All participants who completed Survey 1 were invited via the MTurk Messaging System to participate in Survey 2. This survey was administered on Friday (3 days after Survey 1). At the onset of this survey, participants were told to reflect on the most recent time one of their subordinates had asked them to provide feedback. We did not restrict participants to report on feedback episodes within a specific period of time, yet most participants ($N = 162, 86\%$) reported on a feedback episode that had occurred within the previous 21 days. To help ensure participants were reporting on an actual feedback episode, participants were asked to report the initials of the subordinate who had asked for feedback, as well as the approximate date on which this instance had occurred. Next, we asked participants to write a short description of the topic that the subordinate had asked them for feedback about and what the manager was doing when the subordinate sought feedback. Finally, participants completed the measure of task centrality.

Survey 3 was administered on Monday (3 days after Survey 2). All participants who completed Surveys 1 and 2 were invited to participate in Survey 3. During the third survey, participants were shown their descriptions of the feedback episode from the previous survey to ensure they were reporting on the same episode for Survey 3. Again, this served the purpose of helping managers recall the feedback episode. Participants then reported their levels of annoyance at the time their subordinate sought feedback.

Lastly, Survey 4 was administered on Thursday (3 days after Survey 3). All participants who completed Survey 1, 2, and 3 were invited to participate in Survey 4. During the fourth survey, participants were once again shown their descriptions of the feedback episode they
reported in Survey 2. Participants then reported the amount of effort they had put into providing feedback during the feedback episode they identified.

**Measures**

**Arrogance.** Manager arrogance was measured using 26 items ($\alpha = .89$) from the Workplace Arrogance Scale developed by Johnson et al. (2010). Participants were asked to rate their agreement with these items on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Sample items from this scale included, “I believe I know better than my coworkers in any given situation” and “I do not find it necessary to explain my decisions to others.”

**Task Centrality.** Perceptions of task centrality were measured using a 6-item scale ($\alpha = .76$) that was developed for the specific context of this research. Participants were asked to rate their agreement with these items on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Sample items from this scale included, “providing feedback to my subordinate about their job performance is a central part of being a manager” and “providing feedback to my subordinate about their job performance is a priority relative to other tasks.”

**Annoyance.** Annoyance was measured using 5-items ($\alpha = .93$) from the State-Trait Anger Scale developed by Spielberger et al. (1983). Participants were asked to rate their agreement with these items on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Sample items from this scale included, “at the time I was asked to provide feedback to this subordinate I felt annoyed” and “at the time I was asked to provide feedback to my subordinate I felt irritated.”

**Effort.** Effort allocation towards providing feedback was measured using 4-items ($\alpha = .85$) that were developed by Schmidt and DeShon (2010) and adapted by Minnikin et al. (in
press) to measure effort allocated towards delivering feedback. Participants were asked to rate their agreement with these items on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Sample items from this scale included, “I pushed myself to give good quality feedback” and “I put a great deal of effort into giving feedback.”

**Analysis Plan**

We tested our hypotheses using multiple regression. First, we standardized all variables by computing z-scores. To test Hypothesis 1, we regressed effort on task centrality. To test for mediation in Hypothesis 2, we first regressed annoyance on task centrality. Next, we regressed effort on annoyance while controlling for task centrality. The indirect effect was computed as the product of the regression coefficients of the first two steps. The significance of the indirect effects were tested via the Monte Carlo method (MacKinnon et al., 2007; MacKinnon et al., 2004; Preacher & Selig, 2012), which accounts for asymmetrical sampling distributions (MacKinnon et al., 2002). Indirect effects were considered significant if the 95% confidence interval excluded zero. To test Hypothesis 3, we regressed source annoyance on task centrality, arrogance, and the task centrality × arrogance interaction. We further tested H3 by probing this interaction using simple slopes analyses (Cohen et al., 2003). Finally, to test Hypothesis 4, we regressed effort towards providing feedback on annoyance, controlling for task centrality, arrogance, and the task centrality × arrogance interaction.
Results

Measurement Model and Descriptive Statistics

As a validation step, we conducted a confirmatory factor analysis (CFA). The purpose of the CFA was to determine if our four-factor model (task centrality, annoyance, arrogance, effort) was the best fit for the data. As shown in Table 1, our four-factor model provided a good fit for the data \((CFI = .999, RMSEA = .027)\) and fit significantly better than alternative models such as the one-factor solution \((CFI = .568, RMSEA = .351, \Delta \chi^2 = 442.28, \Delta df = 9, p < .001)\). Descriptive statistics and correlations are presented in Table 2.

Hypothesis Testing

The regression results are summarized in Table 3. Hypothesis 1 predicted a positive effect of task centrality on effort. In support of H1, task centrality was significantly and positively related to effort \((b = .38, SE = .07, p < .001)\). Hypothesis 2 predicted that the effect of task centrality on effort would be mediated by annoyance. This hypothesis was supported. Specifically, task centrality was significantly and negatively related to annoyance \((b = -.20, SE = .07, p = .004)\). Next, controlling for task centrality, annoyance was significantly and negatively related to effort \((b = -.19, SE = .07, p = .004)\). Finally, the indirect effect of task centrality on effort via annoyance was significant and positive \((IE = .04, 95\% CI = [.01, .09])\). Hypothesis 3 predicted that the effect of task centrality on annoyance would be moderated by arrogance. However, we did not find support for H3. Specifically, arrogance did not moderate the relationship between task centrality and annoyance \((b = -.06, SE = .07, p = .442)\). Finally, Hypothesis 4 predicted a positive indirect effect of task centrality on effort via annoyance that would be moderated by arrogance. However, the non-significant interaction term from H3
indicated that the predicted moderated indirect effect of task centrality on effort through annoyance (H4) was also not supported.

Importantly, including arrogance in the model changes our interpretation of the tests of H2. Specifically, when arrogance was included in the model, the main effect of task centrality on annoyance was no longer significant ($b = -.08, SE = .07, p = .226$). Likewise, the significant effect of annoyance on effort also becomes non-significant when arrogance was included in the model ($b = -.07, SE = .07, p = .334$), whereas arrogance still significantly predicted effort ($b = -.29, SE = .08, p < .001$). Therefore, these results suggest that annoyance is not behaving in the way we previously predicted. A possible explanation for these results may be that annoyance is not the functional variable driving the relationship between task centrality and effort. Indeed, when annoyance is in the model alone, annoyance may be acting as an indicator of arrogance. As such, the observed significant effects of annoyance may be spurious and instead be attributed to arrogance. We speculated that the reason for these non-significant relationships was that annoyance was measuring some of the effect of arrogance. Thus, when arrogance and annoyance are included in the model, the main effects of annoyance become non-significant because arrogance is the more appropriate measure that captures effect of annoyance.

Along these lines, we considered arrogance rather than annoyance as the variable of interest. Specifically, we suggest that highly arrogant managers may not allocate maximal effort towards providing feedback to their subordinates. Further, rather than arrogance interacting with task centrality, instead we argue that arrogance would predict the extent to which managers perceived giving feedback as a primary managerial task. Indeed, because highly arrogant managers are also self-important, they may believe other work tasks are more important and thus take priority over providing feedback. Finally, managers that do not perceive providing feedback
as a central task in their role as a manager put forth less effort into giving feedback. To this end, we present supplementary analyses below in which we considered a model without annoyance and with arrogance as the predictor of effort. In particular, we investigated a model in which task centrality mediates the effect of manager arrogance on effort allocation towards feedback delivery.

**Supplemental Analyses**

To assess if our three-factor model (arrogance, task centrality, and effort) was the most appropriate fit for our data, we conducted a CFA. As shown in Table 4, the three-factor solution ($CFI = .992, RMSEA = .084$) provided the best fit for our data and fit significantly better than the one-factor model ($CFI = .623, RMSEA = .355, \Delta \chi^2 = 188.88, \Delta df = 5, p < .001$).

The regression results are summarized in Table 5. First, in line with our reasoning, we found that arrogance was negatively related to task centrality ($b = -.31, SE = .07, p < .001$). Further, we predicted that task centrality would be positively related to effort. To test this prediction, we controlled for arrogance and found this prediction was also supported ($b = .28, SE = .07, p < .001$). Finally, there was a significant indirect effect of arrogance on effort via task centrality ($IE = -.09, 95\% CI = [-.15, -.04]$). The results of our supplemental analyses support our predictions that highly arrogant managers do not allocate maximal effort towards providing feedback because they do not perceive giving feedback as a central part of their job.
Discussion

Summary of Results

Subordinates seek feedback from their managers as a means of gathering information to improve their work performance. Importantly, in addition to providing their subordinates with feedback, managers have other organizational tasks and responsibilities. However, the resources such as effort used to deliver feedback and complete other work-related tasks are limited. Therefore, managers must decide how they will allocate their limited effort across competing work demands. Despite the extensive research on feedback-seeking that has investigated the feedback-seeker, how feedback sources experience the feedback process remains largely unknown. Thus, to gain insights into the overlooked perspective of the feedback source, we examined the role of feedback sources, in our case managers, during feedback exchanges with their subordinates. Specifically, we looked at how managerial characteristics may influence the allocation of effort towards giving feedback.

We predicted there would be an indirect effect of task centrality on effort via annoyance moderated by arrogance. However, we did not find evidence to support this prediction. Despite finding task centrality to be related to annoyance and indirectly related to effort, when we included arrogance in our model, the interaction between task centrality and arrogance was not significant. As a result, we proposed a secondary model without annoyance. Although this new model did not fit with our initial conceptualizations of how managers allocate effort during feedback episodes, the findings from our supplementary analyses lend support to our predictions that managers do not always allocate maximal effort towards delivering feedback. Moreover, the supplementary results demonstrate that managerial factors such as arrogance and task centrality perceptions of providing feedback can influence effortful feedback delivery. Specifically,
managers allocated less effort towards providing feedback to the extent that the manager was more arrogant and perceived giving feedback as a less central task in their role as a manager. That is, the more arrogant the manager is, the less effort managers decide to allocate towards providing feedback because they do not perceive giving feedback to be an important managerial task.

Theoretical Implications

Our research makes contributions to the feedback-seeking literature. First, by investigating the role of the feedback source during feedback exchanges, we broaden the body of knowledge on the feedback process. Specifically, we adopted a self-regulatory perspective to highlight how managers’ characteristics and perceptions of providing feedback influence subsequent resource allocation amongst competing work tasks. To do so, we examined how managerial arrogance and perceptions of giving feedback as a core job task work together to determine the amount of effort managers put into feedback delivery. Importantly, because most feedback-seeking research has focused on the feedback-seeker, we are one of few studies that looks at the way feedback sources experience the feedback process. Without the sources’ perspective, critical information is missing that is necessary to draw concrete conclusions about the feedback-seeking process as a whole.

Additionally, our findings highlight the self-regulatory processes involved in effort allocation during feedback-seeking episodes. In particular, we found that perceptions of the degree to which managers perceive providing feedback to be a central task in their role as a manager can influence goal pursuit. Specifically, we identify task centrality as a mechanism for goal-prioritization used by managers to inform them of which tasks to prioritize and subsequently allocate effort towards pursuing. Our findings demonstrate that when faced with
multiple tasks, the tasks that are believed to reflect one’s core organizational responsibilities are prioritized over tasks that are considered less central. That is, managers committed more effort towards delivering feedback granted they perceived giving feedback as a more central task over their other work demands. This sheds light on how managers balance providing feedback and their other work tasks. Finally, our results extend beyond just managers and could be useful in explaining how employees use aspects of their role responsibilities to determine how they will regulate their time, effort, and attention in pursuit of competing work-demands.

In addition to better understanding how managers regulate their effort to provide feedback, our task centrality findings have important implications for the way we think about feedback in general. For instance, managers are the primary sources of feedback mainly because other members in the organization consider giving feedback to be the managers’ job. However, based on our results there is variance in the way that managers themselves perceive their role responsibilities. Specifically, not all managers agree that delivering feedback is an important part of their job. Given that we demonstrated task centrality perceptions influence effort towards feedback, the current literature is limited in that it focuses on feedback-seeking behaviours and the outcomes of feedback without fully understanding how the feedback itself may vary. In doing so, all feedback received is assumed to be equal and the outcomes of feedback-seeking are solely dependent on the seeker rather than the quality of the feedback that was received in the first place. That is, differences in the quality of feedback that subordinates receive may render the feedback more or less useful for helping them achieve performance outcomes at work. These findings may also help to explain why the relationship between feedback-seeking behaviour and performance improvements has varied within feedback-seeking literature (Anseel et al., 2015).
It is also important to note that there are other potential theoretical explanations for our results. In particular, it may be that managers’ perception of delivering feedback as a central managerial task is determined by managers’ self-construal. Self-construal defines one’s concept of their individuality and can be divided into independent or interdependent self-construal (Wu et al., 2018). Importantly, self-construal can influence goal pursuit such that individuals are more likely to focus on goals that are consistent with their type of construal (Wu et al., 2018). For instance, independent self-construal promotes individuality and a focus on one’s personal goals over others (Singelis, 1994). Conversely, those with an interdependent self-construal emphasize relationships by promoting goals of the team (Singelis, 1994). Therefore, we suggest managers with an independent self-construal may report delivering feedback as a less central task because these managers do not perceive this task to directly benefit their personal goals. Opposite to this, managers with interdependent self-construal may rate giving feedback as a more central task because they see the value that providing feedback has for their subordinate and their team. To this end, we argue arrogance may act as an indicator for self-construal and the variance we observed between managers for our arrogance construct may instead be variance more broadly represented by self-construal. Future research should investigate self-construal as a potential predictor of task centrality perceptions for providing feedback.

Finally, we offer a theoretical explanation for why we did not find support for the indirect effect of task centrality on effort via annoyance moderated by arrogance. In particular, we speculate there may be a moderating variable to explain the path between annoyance and effort. For instance, we theorized that managers experiencing greater levels of annoyance would allocate less effort towards delivering feedback because in managing their negative emotions they had less effort available for responding to feedback requests. However, it is likely that
individuals vary in their ability to regulate their emotions. That is, some individuals may have a capacity to better regulate their emotions. Indeed, individuals with a greater ability to manage their feelings would likely have more resources available to effortfully deliver feedback regardless of how annoyed they were by the feedback request. To this end, we suggest future research investigate emotional regulatory capacity as a potential moderator for the relationship between annoyance and effort.

**Practical Implications**

The nature of the managerial position and associated role responsibilities make managers the primary target for feedback requests. However, not every manager will give good feedback to their subordinates. Indeed, the results of our study demonstrate that highly arrogant managers allocate less effort towards giving feedback than less arrogant managers. Given that effort is necessary to deliver high-quality feedback, it is likely that subordinates with more arrogant managers are not receiving the feedback necessary for development and performance improvements at work. In addition, research on workplace arrogance has linked arrogance to lower self and other-ratings of task performance as well as low cognitive ability (Johnson et al., 2010). Taken together, these findings suggest that the feedback subordinates receive from their arrogant managers may suffer in terms of quality and usefulness. Thus, we suggest that subordinates seek feedback from additional sources at work such as colleagues or other supervisors. In doing so, subordinates will have multiple sources of feedback and offset the potential effects of receiving feedback from supervisors that put insufficient effort into feedback delivery.

We also found that perceptions of giving feedback as a central task impacted the amount of effort managers put towards providing feedback. Specifically, managers that perceived
providing feedback as a more secondary rather than primary task allocated less effort to delivering feedback. To increase effortful feedback delivery, we suggest organizations emphasize providing feedback as a central task for managerial roles. That is, organizations can highlight to managers the importance of providing feedback to those who seek it. Given that important tasks are prioritized in terms of resource allocation, it is likely that this intervention will result in managers increasing the effort they devote to feedback delivery resulting in subordinates receiving higher quality feedback.

**Strengths and Limitations**

The present study has several strengths. First, our research was based on a sample that is highly generalizable to the population at large. Although we used a convenient sample, we collected data from managers that varied across industries and occupations. By sampling a diverse population of managers our findings more likely represent valid estimates of managers in workplaces. Additionally, we captured authentic feedback episodes. By asking participants to report on a feedback episode as it had naturally occurred, we were able to capture the richness of the interpersonal exchange between managers and subordinates. Further, by reporting on what managers think and do during feedback-seeking episodes with their subordinates at work we have a better understanding of whether the relationship holds in the face of other contextual workplace factors. Finally, our findings are generalizable to the workplace where most feedback-seeking occurs, and the implications of low-quality feedback are felt.

However, in addition to the strengths there are some limitations of our study. For instance, the self-report nature of our arrogance measure may have allowed participants to misreport their true levels of arrogance. Indeed, because arrogance is regarded as a negative trait to possess managers may not be forthcoming about how arrogant they are, and instead report
being less arrogant. Therefore, the variance in our arrogance measure was likely attenuated by participants’ scores bunching together at the low end of the scale. Despite this potential constraint, we did observe significant relationships between arrogance as the predictor variable for both perceptions of task centrality and effort towards providing feedback. Importantly, observing these meaningful relationships suggests our self-report measure of arrogance is not a cause for concern with our data. Finally, to address this limitation we suggest future research should employ an other-reported measure of arrogance and instead have subordinates rate their manager’s arrogance.

Another limitation is that we did not include a variable to measure the downstream effects of the effort managers allocate towards providing feedback. Thus, we can only suggest what the implications of low effort towards giving feedback would be. Likewise, we cannot say for certain whether more effortful feedback delivery results in meaningful outcomes for the subordinate such as increased job performance. To address this limitation, we propose additional research consider the outcomes of effort allocation towards giving feedback. In particular, research should investigate subordinates’ perceptions of the quality or usefulness of the feedback received as well as how sensitively the feedback was delivered (Steelman et al., 2004). This is a potentially fruitful avenue of research as perceptions of the feedback environment have implications for feedback-seeking behaviours (Borden et al., 2018; Steelman et al., 2004).

Our final study limitation was that we did not differentiate between the types of feedback requests managers received. Specifically, requests for feedback can vary according to their difficulty. For instance, during feedback-seeking episodes subordinates may have asked relatively straightforward questions (E.g., am I completing this task correctly?) whereas other subordinates may have requested more detailed feedback (E.g., can you review and edit a slide
deck for this client?). That is, during feedback-seeking episodes managers responding to more straightforward requests likely expended less effort as compared to managers responding to more demanding requests. Importantly, this has implications for the amount of effort managers reportedly put towards providing feedback as difficult feedback requests likely warranted greater effort regardless of the managers’ arrogance or perception of giving feedback as an important managerial task. Future research should identify and control for the feedback request difficulty and other elements of feedback requests that may impact subsequent effort allocation such as the urgency of the request.

**Future Directions**

In the current research, we found evidence of an indirect negative relationship between managers’ arrogance and effort allocation towards feedback delivery. However, we also observed a residual effect of arrogance on effort, above and beyond the effect of task centrality. This suggests there may be additional explanations for the relationship between arrogance and effort. We propose that managerial self-efficacy may be an additional explanation for this relationship. In particular, more arrogant individuals may also have a high degree of self-efficacy, which is one’s perceived ability to perform a particular task (Judge et al., 2007). Further, individuals with high self-efficacy may believe they can perform well at a given task and underestimate the resources needed to accomplish this goal (Schmidt & DeShon, 2009). Thus, individuals with greater self-efficacy may not allocate as much time and effort towards accomplishing a task compared to individuals with lower self-efficacy. Importantly, there is evidence from self-regulatory research to support a negative relationship amongst self-efficacy and subsequent resource allocation (e.g., Beck & Schmidt, 2012, 2018; Vancouver & Kendall, 2006). Therefore, it is entirely possible that highly arrogant managers may believe they are good
at providing feedback to their subordinates and as such, do not exert as much effort towards feedback delivery. To this end, we suggest future research should investigate the relationship between arrogance and self-efficacy as determinants of effort allocation.
Conclusion

Managers have long been regarded as the main source of feedback for their subordinates. However, providing feedback is not always a priority for some managers especially if the effort used to give feedback takes away from other more important work tasks. Therefore, it is critical to understand how managers choose to allocate effort towards feedback delivery. Importantly, we found evidence that managers vary the amount of effort they put forth into providing feedback based on their arrogance and the extent to which delivering feedback is thought to be a central task in their role as a manager. Specifically, more arrogant managers did not allocate maximal effort because they did not perceive giving feedback to be an important managerial task whereas, less arrogant managers did perceive giving feedback to be an important task as a manager and allocated more effort towards feedback delivery. Overall, our study sought to address the gap in feedback-seeking literature by demonstrating that the feedback source plays a more important role in the feedback-seeking process than previously thought. Indeed, we demonstrate that the sources’ experience of feedback exchanges has implications that extend beyond the feedback-seeker and may even alter the way researchers and practitioners regard feedback in general.
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Appendices

Appendix A

Perceived Task Centrality of Providing Feedback Scale

Instructions:

Please indicate the **extent to which you agree** with the following statements regarding how important you think it is to provide feedback to a subordinate in your role as a manager.

*Providing feedback to my subordinate about their job performance is...*

1. A priority relative to other tasks.
2. More important than other tasks.
3. A relatively minor part of my job. R
4. A core managerial task.
5. Secondary to my other responsibilities as a manager. R
6. A central part of being a manager.

Response scale: 1 (*Strongly Disagree*), 2 (*Disagree*), 3 (*Neither Agree nor Disagree*), 4 (*Agree*), 5 (*Strongly Agree*)
Appendix B
Manager Annoyance Scale

Instructions:

Based on the feedback exchange described previously, please indicate the extent to which you agree with the following statements regarding your attitude(s) at the time you were asked to provide feedback to this subordinate.

At the time I was asked to provide feedback to this subordinate ...

1. I felt infuriated.
2. I felt irritated.
3. I felt angry.
4. I felt mad.
5. I felt annoyed.

Response scale: 1 (Strongly Disagree), 2 (Disagree), 3 (Neither Agree nor Disagree), 4 (Agree), 5 (Strongly Agree)
Appendix C

Workplace Arrogance Scale

Instructions:

Please indicate the extent to which you agree with the following statements regarding your attitude(s) and behavior(s) at work.

1. I believe I know better than my coworkers in any given situation.
2. I am willing to listen to others’ opinions, ideas, or perspectives. R
3. I make decisions that impact others without listening to their input.
4. I welcome constructive feedback. R
5. I use non-verbal behaviour like glaring or staring to make people uncomfortable.
6. I take responsibility for my own mistakes. R
7. I criticize others.
8. I belittle my employee(s).
9. I realize that it does not always have to be “my way or the highway” R
10. I assert authority in situations when I do not have the required information.
11. I avoid getting angry when my ideas are criticized. R
12. I discredit others’ ideas during meetings and often make those individuals look bad.
13. I give others credit for their ideas. R
14. I shoot down other people’s ideas in public.
15. I am considerate of others’ workloads. R
16. I exhibit different behaviors with subordinates than supervisors.
17. I do not mind doing menial tasks. R
18. I am willing to take credit for success as well as blame for failure. R
19. I make unrealistic time demands on others.
20. I can get others to pay attention without getting emotionally “heated up”. R
21. I do not find it necessary to explain my decisions to others.
22. I address my subordinates’ complaints with every intention of working to resolve them. R
23. I take myself very seriously.
24. I do not see myself as being too important for some tasks. R
25. I put organizational objectives before my personal agenda.
26. I never criticize other employees in a threatening manner. R

Response scale: 1 (Strongly Disagree), 2 (Disagree), 3 (Neither Agree nor Disagree), 4 (Agree), 5 (Strongly Agree)
Appendix D
Effort Towards Providing Feedback

Instructions:

Based on the feedback exchange described previously, please indicate the extent to which you agree with the following statements regarding the effort you allocated towards providing accurate and sensitive feedback to the subordinate you identified.

*I put a great deal of effort into providing feedback that was ...*

1. Helpful.
2. Tactful.
3. Valuable.
5. Useful.
7. Supportive.
8. Thoughtful.

Response scale: 1 (Strongly Disagree), 2 (Disagree), 3 (Neither Agree nor Disagree), 4 (Agree), 5 (Strongly Agree)


## Appendix E

### Table 1

*Confirmatory Factor Analysis of Focal Measurement Model*

<table>
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<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>$df$</th>
<th>$\Delta \chi^2$</th>
<th>$\Delta df$</th>
<th>$p$</th>
<th>RMSEA</th>
<th>CFI</th>
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</thead>
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<tr>
<td>One factor</td>
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<td>19</td>
<td>442.28</td>
<td>9</td>
<td>&lt;.001</td>
<td>.351</td>
<td>.568</td>
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<tr>
<td>Two factor (Arrog + Annoy vs. TC + Effort)</td>
<td>472.73</td>
<td>17</td>
<td>461.36</td>
<td>7</td>
<td>&lt;.001</td>
<td>.380</td>
<td>.547</td>
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<tr>
<td>Two factor (Arrog + TC vs. Annoy + Effort)</td>
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<td>285.84</td>
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<td>.298</td>
<td>.721</td>
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<tr>
<td>Two factor (Arrog + Effort vs. TC + Annoy)</td>
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<td>255.84</td>
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<td>&lt;.001</td>
<td>.281</td>
<td>.751</td>
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<td>Three factor (Annoy + Arrog vs. TC vs. Effort)</td>
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<td>406.33</td>
<td>4</td>
<td>&lt;.001</td>
<td>.394</td>
<td>.599</td>
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<tr>
<td>Three factor (Arrog + TC vs. Annoy vs. Effort)</td>
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<td>.925</td>
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<td>Three factor (Arrog + Effort vs. TC vs. Annoy)</td>
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<td>.834</td>
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<tr>
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<td>103.17</td>
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<td>&lt;.001</td>
<td>.197</td>
<td>.900</td>
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<td>Three factor (Annoy + Effort vs. TC vs. Arrog)</td>
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<td>.295</td>
<td>.775</td>
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<td>Three factor (TC + Effort vs. Annoy vs. Arrog)</td>
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<td>.948</td>
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<td>Four factor</td>
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<td></td>
<td></td>
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<td>.999</td>
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*Note. N = 187. TC = Task Centrality, Annoy = Annoyance, Arrog = Arrogance. Changes in chi-squared and degrees of freedom are in reference to the four-factor model.*
Appendix F

Table 2

Means, Standard Deviations, and Correlations

<table>
<thead>
<tr>
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<th>Mean</th>
<th>SD</th>
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<th>2</th>
<th>3</th>
<th>4</th>
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<td>1. Task Centrality</td>
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<td>.76</td>
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<td>2. Annoyance</td>
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<td>.73</td>
<td>-.21 *</td>
<td>.93</td>
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<tr>
<td>3. Arrogance</td>
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<td>.45</td>
<td>-.31 **</td>
<td>.46 **</td>
<td>.89</td>
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<tr>
<td>4. Effort</td>
<td>4.08</td>
<td>.70</td>
<td>.38 **</td>
<td>-.27 *</td>
<td>-.42 **</td>
<td>.85</td>
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</tbody>
</table>

Note. N = 187. Alpha coefficients are italicized and presented on the diagonal. *p < .01, **p < .001. Significance tests are two-tailed.
### Appendix G

#### Table 3

**Relationships Between Task Centrality, Annoyance, Arrogance, and Self-Reported Effort**

<table>
<thead>
<tr>
<th>Variables</th>
<th>$b$</th>
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<th>$t$</th>
<th>$p$</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
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<tr>
<td>Task Centrality</td>
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<td>.07</td>
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<td>.15</td>
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<td>DV: Annoyance (H2 – Step 1)</td>
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<tr>
<td>Task Centrality</td>
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<td>-2.86</td>
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<td>.03</td>
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<tr>
<td>Task Centrality</td>
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<td>.04</td>
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<tr>
<td>Annoyance</td>
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<td>-2.89</td>
<td>.004</td>
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<tr>
<td>DV: Annoyance (H3)</td>
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<td></td>
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<td>.21</td>
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<td>Task Centrality</td>
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<td>.07</td>
<td>-1.12</td>
<td>.266</td>
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<tr>
<td>Arrogance</td>
<td>.42</td>
<td>.07</td>
<td>5.82</td>
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<tr>
<td>Task Centrality × Arrogance</td>
<td>-.06</td>
<td>.07</td>
<td>-2.77</td>
<td>.042</td>
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<td>DV: Effort (H4)</td>
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<td>Arrogance</td>
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<td>-3.74</td>
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<td>Task Centrality × Arrogance</td>
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*Note. N = 187. All predictors are centered around their respective means. Significance tests are two-tailed.*
Appendix H

Table 4

Confirmatory Factor Analysis of Supplemental Measurement Model

<table>
<thead>
<tr>
<th>Model</th>
<th>$x^2$</th>
<th>df</th>
<th>$\Delta x^2$</th>
<th>$\Delta df$</th>
<th>$p$</th>
<th>RMSEA</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>One factor</td>
<td>195.80</td>
<td>8</td>
<td>188.88</td>
<td>5</td>
<td>&lt;.001</td>
<td>.355</td>
<td>.623</td>
</tr>
<tr>
<td>Two factor (Arrog + TC vs. Effort)</td>
<td>84.37</td>
<td>6</td>
<td>77.45</td>
<td>3</td>
<td>&lt;.001</td>
<td>.265</td>
<td>.844</td>
</tr>
<tr>
<td>Two factor (Arrog + Effort vs. TC)</td>
<td>175.64</td>
<td>6</td>
<td>168.72</td>
<td>3</td>
<td>&lt;.001</td>
<td>.390</td>
<td>.663</td>
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<tr>
<td>Two factor (Effort + TC vs. Arrog)</td>
<td>61.86</td>
<td>6</td>
<td>54.94</td>
<td>3</td>
<td>&lt;.001</td>
<td>.224</td>
<td>.889</td>
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<tr>
<td>Three factor</td>
<td>6.92</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>.084</td>
<td>.992</td>
</tr>
</tbody>
</table>

Note. $N = 187$. TC = Task Centrality, Arrog = Arrogance. Changes in chi-squared and degrees of freedom are in reference to the three-factor model.
Appendix I

Table 5

*Relationships Between Task Centrality, Arrogance, and Self-Reported Effort (Supplemental Analyses)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>b</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
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</thead>
<tbody>
<tr>
<td>DV: Task Centrality</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrogance</td>
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<td>.07</td>
<td>-4.43</td>
<td>&lt;.001</td>
<td>.10</td>
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<tr>
<td>DV: Effort</td>
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<td>.24</td>
</tr>
<tr>
<td>Arrogance</td>
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<td>.07</td>
<td>-4.94</td>
<td>&lt;.001</td>
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<td>.14</td>
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<tr>
<td>Task Centrality</td>
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<td>.07</td>
<td>4.17</td>
<td>&lt;.001</td>
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</table>

*Note.* $N = 187$. All predictors are centered around their respective means. Significance tests are two-tailed.