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CONSIDERING THE "WHY" OF EMPLOYEE COMMITMENT

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MANAGERIAL DOWNWARD INFLUENCE TACTICS: CONSIDERING THE "WHY" OF EMPLOYEE COMMITMENT

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ABSTRACT

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Research on managerial influence tactics has focused on three areas: identifying tactics, quantifying their frequency, and linking tactics to outcomes. However, little attention has been paid to why employers respond with commitment or lack thereof when managers send particular influence messages. Research on employee motivation may help to answer this question by informing the association between particular influence tactics and employee commitment. Self-determination theory (SDT, Deci & Ryan, 1985a; 2000) emphasizes the importance of three basic needs – autonomy, competence, and relatedness. Central to the theory is that particular social contexts and social interactions offer different opportunities to satisfy these needs. The theory proposes a range of motivation from amotivation to extrinsic motivation to intrinsic motivation. Further, extrinsic motivation ranges in quality from externally regulated to internally regulated. This study tested whether SDT can explain why particular tactics are associated with commitment. In other words, do autonomy, competence, relatedness, and regulation mediate the relationship between influence tactics used by managers and subsequent levels of employee commitment?

To answer this question, the study focused on two particular influence tactics – inspirational appeals and pressure. The experimental model predicted that inspirational appeals would be associated with higher levels of perceived autonomy, competence, and relatedness, which would lead to identified regulation, which would be positively

associated with commitment; conversely, pressure tactics would be associated with lower levels of perceived autonomy, competence, and relatedness, which would lead to external regulation, which would be negatively associated with commitment. To test this prediction, 300 participants were placed into one of three experimental conditions – inspirational appeals, pressure, or direct request/control. Participants were given an instruction embodying one of those tactics, completed a task, and evaluated their autonomy, competence, relatedness, regulation, and commitment in completing the task. Contrary to predictions, the results showed no significant difference among experimental conditions in levels of autonomy, competence, or relatedness. However, the data were consistent with the rest of the proposed model. These results suggest multiple avenues for further testing of the model. Though the data were not consistent with the proposed model, modifications offer interesting future possibilities for this line of research.

This dissertation is dedicated to my family, especially Eric and Landon.

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Introduction

Managers' attempts to influence their employees are uniquely tied to the success of organizations, managers, and employees. Downward influence can be thought of as creating, changing, or reinforcing the attitudes, beliefs, and/or behaviors of those persons below one in the organizational hierarchy. Successful downward influence is simultaneously vital and routine for managers. "A manager's effectiveness depends on success in influencing others to (a) modify their plans and schedules, (b) approve and support the manager's plans and proposals, (c) provide additional resources needed to accomplish major tasks, (d) accept and carry out new assignments, and (e) provide relevant and timely information" (Yukl & Falbe, 1990, p. 134). One of any manager's core responsibilities is to influence his/her direct reports' work behavior. Research on downward influence has ranged from identifying tactics employed by managers to identifying the outcomes associated with those tactics for organizations, managers, and employees. However, the "why" of these associations is, thus far, unexplored. Specifically, why are some influence tactics more effective than others? The concept of motivation, which is also "of preeminent concern to those in roles such as manager...that involve mobilizing others to act" (Ryan & Deci, 2000b, p. 69), may provide an explanation as to why particular tactics often lead to certain outcomes. This paper reviews the literature on downward influence, and then proposes the application of self-determination theory to better understand the connection between manager's downward influence tactics and their associated outcomes.

Literature Review

Distinguishing "Influence" from "Power"

The terms "power" and "influence" are sometimes synonymous in lay usage, and, certainly, the two are related in academic work as well. For example, Marwell and Schmitt's (1967) 16-category taxonomy, one of the most commonly used typologies of influence tactics in communication research, was partially derived from French and Raven's (1959) influential typology of power bases. Lumping power and influence together is particularly tempting when considering relationships in hierarchical organizations. However, most organizational influence researchers carefully distinguish between power and influence. "Influence is simply the process by which people successfully persuade others to follow their advice, suggestion, or order. It can be contrasted with power which is a personal or positional attribute that enables one to influence others and which can be thought of as 'continuing or sustained' influence" (Keys & Case, 1990, p. 38). Thus, power might be better conceptualized as influence potential rather than as an actual influence tactic. "Power is exercised through influence behavior, and different forms of influence behavior can be classified into behavior categories" (Yukl, Lepsinger, & Lucia, 1991, p. 417). In addition to definitional separation, there is also empirical evidence to suggest that the type of power one has within an organizational hierarchy does not necessarily dictate the type of influence tactics that person will use (Kipnis, Schmidt, & Wilkinson, 1980). For example, the separate nature of power and influence was empirically supported by Yukl, Kim, and Falbe (1996), who found that referent power (i.e., charisma), the influence tactic used,

and the nature of the task each independently affected the outcome of an influence attempt, suggesting that power serves as an antecedent to influence.

Based on their relative positions within the organizational hierarchy, managers have legitimate power over their subordinates but may also rely on other sources of power. The idea of legitimate power requires buy-in to the social structure on the part of the subordinate (French & Raven, 1959). Keys and Case (1990) noted that one's ability to exercise downward influence is increasingly important in the face of the diminishing power of formal authority. Beginning in the late 1970s, research on interpersonal influence in organizations transitioned from a focus on power to one defining and identifying actual tactics employed by those in managerial positions to influence the behavior of their employees. Kipnis, Schmidt, Swaffin-Smith, and Wilkinson (1984) asserted that French and Raven's "theoretical approach does not help us identify all the tactics actually used by managers – that is, managers use tactics not mentioned by French and Raven" (p. 59).

A History of Research on Downward Influence in Organizations

Identification of influence tactics. Across interpersonal contexts and relationship types, researchers have identified 74 different influence classification systems that include 64 tactics (Kellermann & Cole, 1994). One of these classification systems, the line of research on organizational influence tactics originated by Kipnis et al. (1980), provides the starting point for this brief history of research on influence in organizations. In this foundational research, Kipnis et al. conducted two studies to explore how managers attempt to influence others at work. In Study 1, Kipnis et al. content-analyzed the self-reported influence attempts of lower-level managers toward their subordinates. In

Study 2, the researchers distributed a Likert-type questionnaire based on the tactics identified in Study 1 to evening MBA students and found that managers engaged in downward influence employed ingratiation, rationality, assertiveness, exchange, upward appeals, sanctions, coalitions, and blocking (see Table 1). Because of its wide availability, variations of this scale are still frequently used in influence research, though the most tested versions focus on upward influence (e.g., Schriesheim & Hinkin, 1990).

Yukl and Falbe (1990) sought to replicate and extend the work of Kipnis et al. (1980) and created a new taxonomy and questionnaire (the Influence Behavior Questionnaire or IBQ). Many influence tactics retained identical or similar labels (e.g., ingratiation/friendliness was labeled ingratiation); other tactics were comparable to previously specified tactics, but renamed (e.g., assertiveness became pressure). One notable change was the addition of two tactics – inspirational appeals and consultation – that were not comparable to any strategy specified by Kipnis and colleagues. The eight category system quickly became a nine category system, with the removal of the upward appeals category and the addition of two new categories – personal appeals and legitimating, which were identified in manager and employee self-reports. The list of nine categories was used in research through the 1990s. In 2005, Yukl, Chavez, and Seifert found support for the validity of two additional inductively developed influence tactics – collaboration and apprising. Based on these findings, 11 tactics of downward influence with different impacts have been identified. Table 1 lists the tactics identified by Yukl and colleagues.

Table 1

Comparison of Downward Influence Strategies Identified by Researchers

Kipnis and colleagues (1980; 1984)	Yukl and colleagues (1992; 1996; 2005)
Assertiveness (demanding, ordering)	*Pressure* (demands, orders, threats, intimidation)
	Legitimating (relies on organizational structures and rules)
Ingratiation or Friendliness (making subordinate feel important)	*Ingratiation* (puts other in good mood, manages other's face)
Rationality or Reason (explaining, using logic)	*Rational Persuasion* (logical arguments and factual evidence)
Coalitions (assistance from others)	*Coalition* (seeks aid of others)
Bargaining (negotiation, exchange of benefits)	*Exchange* (exchange of favors)
Sanctions (punishments and rewards for behavior)	
Higher Authority (support from higher-ups to back requests)	
	Personal Appeals (emphasizes personal relationship)
	Inspirational Appeals (appeal to values, ideals)
	Consultation (seeks participation)
	*Collaboration** (offer of resources to assist with action completion)
	*Apprising** (explain how compliance will benefit target)

* Added in 2005

Influence strategy frequency. In addition to identifying tactics, the prevalence of their use has also been examined (see Table 2). This line of study originated with Kipnis et al.'s (1980) research, which found that managers were likely to rely on assertiveness as a downward influence strategy across situations. Kipnis et al. (1984) stated that managers were most likely to use rationality/reason, followed by assertiveness, ingratiation/ friendliness, coalitions, bargaining, higher authority, and were least likely to use sanctions. This early research led to some tentative conclusions about downward influence strategy use. Both studies provide some consensus about which tactics are

preferred or more influential. One assertion that can be arrived at is that ingratiation, rationality/reason, and assertiveness are likely to be preferred influence tactics. However, evidence of which of the three is preferred was not conclusive. Though the same three tactics were in the top three for both Kipnis et al. studies (ingratiation, rationality/reason, and assertiveness), they were not in the same preference-based order across both studies. The work of Keys and Case (1990) and, to some extent, of Barry and Bateman (1992) further supports the idea that rationality/reason and assertiveness are important tactics but does little to add certainty as to which strategy, if any, is most used.

Moving forward in this line of research, Yukl and Falbe (1990) tested their proposed influence tactics in two studies. Study 1 tested only the agent's self-reported influence attempts, much as Kipnis et al. (1980) had done. The results of Study 1 suggested that those engaged in downward influence employed all eight tactics, though they most frequently relied on consultation, rational persuasion, inspirational appeals, and ingratiating and least frequently relied on exchange. Their results somewhat replicated those of Kipnis et al., especially as rational persuasion was shown to be frequently used. However, the additional categories of consultation and inspirational appeals also appeared to be preferred tactics for downward influence. Unlike Kipnis et al.'s findings, pressure (likened to assertiveness) was not favored by managers. One issue Yukl and Falbe highlighted with the research of Kipnis et al. was the lack of confirmation of preferred tactics from targets of influence. In Study 2, subordinates reported that their managers were most likely to employ consultation, rational persuasion, inspirational appeals, and ingratiating and least likely to rely on exchange. The target reports matched

the agent reports and further established the viability of the category system proposed by Yukl and Falbe.

Table 2
Comparisons of Findings across Studies

	Kipnis et al. (1980)	**Kipnis et al. (1984)**	**Yukl & Fable (1990)**	**Yukl & Tracey (1992)**
Influence Tactics Ranked from Most to Least Preferred/ Influential	ingratiation rationality/reason assertiveness exchange upward appeals sanctions coalitions blocking	rationality/reason assertiveness ingratiation/ friendliness coalitions bargaining higher authority sanctions	consultation rational persuasion inspirational appeals ingratiating coalition/pressure* pressure/coalition* upward appeals exchange	consultation rational persuasion inspirational appeals ingratiating legitimating pressure personal appeals coalition exchange

* Coalition was ranked 5th by managers (or influence agents), while pressure was ranked 5th by subordinates (or influence targets). Other than this difference, the rankings provided were identical.

Outcomes of downward influence and their associations with particular tactics. A third area of work by Yukl and colleagues looked at the consequences and outcomes of their proposed tactics. Falbe and Yukl (1992) considered three potential outcomes for influence attempts – commitment, compliance, and resistance. Commitment is when the employee "agrees internally with an action or decision, is enthusiastic about it, and is likely to exercise initiative and demonstrate unusual effort and persistence in order to carry out the request successfully" (Falbe & Yukl, p. 639). "Compliance occurs when the [employee] carries out the requested action but is apathetic about it rather than enthusiastic, makes only a minimal or average effort, and does not show any initiative" (Falbe & Yukl, p. 639-640). Finally, an employee is resisting when s/he "is opposed to the requested action and tries to avoid doing it by refusing, arguing, delaying, or seeking to have the request nullified" (Falbe & Yukl, p. 640). This range of outcomes extends this line of research beyond simple compliance, which appeared to be the unstated focus of

the studies of Kipnis and colleagues, to commitment outcomes similar to persuasion effects.

Most studies in this line of research equate commitment with successful influence. Studies varied in how the outcomes of particular influence attempts were measured, but generally used one of two methods. Some (e.g., Yukl et al., 2005: Study 2; Yukl et al., 1996) used the measurement originated by Falbe and Yukl (1992), which requires participants to identify the result of the influence attempt using the three outcomes described above. These three outcomes were treated both as categorical and as "an underlying scale of increasing effectiveness" in analysis (with resistance equal to 1, compliance equal to 2, and commitment equal to 3). Others (e.g., Yukl et al., 2005: Study 1 and Study 3; Yukl, Kim, & Chavez, 1999) used Likert-type items to measure commitment. Yukl and Tracey (1992) originated the most frequently-used item (rated from 1 – none to 7 – all), which asks how many influence attempts by a manager result in complete commitment by the employee. In summary, though three outcomes have been distinguished definitionnally, commitment level was frequently the outcome of focus in research, with resistance and compliance treated as low to moderate levels of commitment respectively.

These three outcomes and their association with particular downward influence tactics were examined across multiple studies. In the first study in this line of research, Falbe and Yukl (1992) collected descriptions of influence attempts from MBA students. These recalled influence attempts were coded and the number of cases associated with each outcome was examined. Inspirational appeals led to commitment 90% of the time when used, while consultation and personal appeals both led to commitment more than

40% of the time. Legitimating, coalition, pressure, and exchange each led to compliance more than 40% of the time when employed. Legitimating, pressure, coalition were significantly more likely to be associated with resistance. Pressure, coalition, rational persuasion, legitimating, and ingratiation each resulted in resistance more than 40% of the time when they were used. Thus, of the tactics typically used by managers, inspirational appeals were associated with commitment and pressure tactics were associated with resistance and/or compliance.

Yukl and Tracey (1992) somewhat replicated these results using a different methodology. By completing the IBQ, participants rated the frequency with which particular tactics were used and this tactic frequency rating was correlated with the previously mentioned commitment item. In their study, inspirational appeals were found to be most highly and positively correlated with target task commitment, followed by consultation, rational persuasion, ingratiation, exchange, and personal appeals. Yukl et al. (1996) also replicated previous findings (Falbe & Yukl, 1992; Yukl & Tracey); commitment was found to be associated with inspirational appeals, consultation, and strong rational persuasion tactics but not with pressure. Yukl et al. (1999) also found that strong rational persuasion was associated with commitment. The use of pressure was significantly negatively correlated with target task commitment. Yukl et al. (2005) found that, as they predicted, collaboration correlated with commitment and apprising was associated with compliance.

In summary, inspirational appeals were consistently positively associated with employee commitment – the outcome that appears to be most desirable for a downward influence attempt (Falbe & Yukl, 1992; Yukl et al., 1996; Yukl & Tracey, 1992). In

addition, Yukl and Tracey found that inspirational appeals were also related to higher managerial effectiveness ratings. Consultation, strong rational persuasion, and collaboration have also been associated with commitment (Yukl et al. 1996 and Yukl et al 2005, respectively). Pressure tactics should be avoided, as they are associated with reduced commitment, lowered views of managerial effectiveness, and resistance. Although many early findings suggested that assertiveness was a preferred strategy, more recent findings suggest that such tactics should be avoided in order for downward influence to be successful.

A Question Left Unanswered

The findings of previous research on downward influence offer some replicated results that can inform further research. For example, results suggest that messages using inspirational appeals, consultation, and strong rational persuasion tactics are most likely to lead to employee commitment to an assigned work task. However, the area of downward influence research faces some shortcomings that limit the extent to which it can further explain why particular strategies are more "effective" (i.e., more likely to result in commitment) than others. Perhaps one of the greatest shortcomings is the lack of a theoretical framework driving the research. Organizational influence research generally suffers from an admitted lack of theoretical guidance. Yukl, Guinan, and Sottolano (1995) asserted that "the few available theories are more relevant for understanding impression management tactics than for understanding proactive influence tactics" (p. 706). Kellermann and Cole (1994) noted that most strategy identification-based approaches to the study of influence are "atheoretical groupings of strategies rather than theoretically derived classification systems" and argued that study should be focused on

the features/dimensions underlying messages rather than on strategy identification (p. 25). Fairhurst (2001) echoed this sentiment.

The studies outlined briefly above provide a foundation for further research in this area by showing consistent associations between tactics and outcomes. Though particular behavioral outcomes have been shown to result consistently from particular influence tactics, the focus of this line of research has not been on understanding *why* particular influence tactics lead to particular outcomes. This atheoretical approach is not unique to organizational influence research; Kellermann and Cole's (1994) critique addresses problems in the larger body of social influence research. Future research should move in the direction of determining the mechanisms and theoretical explanations for why some strategies are effective and others are not. Knowledge of the features of downward influence messages that result in specific psychological responses and lead to commitment, compliance, and resistance may eventually be extended to the entire area of research on tactic identification. A next step in this line of research is understanding the connection between downward influence tactics and their outcomes. Yukl et al. (2005) suggested in passing that motivation may affect the outcomes associated with different influence tactics. However, this relationship has been neither formally hypothesized nor tested. Further, though their paper references the work of Deci and Ryan (1985a), Yukl et al.'s discussion of motivation is not necessarily consistent with the theory and research on self-determination theories.

Self-Determination Theories of Motivation

An overview of central concepts. The missing link between a downward influence message embodying a particular tactic and the employee's reaction to that message (i.e.,

the outcome) could be motivation. "Motivation concerns energy, direction, persistence and equifinality – all aspects of activation and intention" (Ryan & Deci, 2000b, p. 69). Multiple theories have applications in better understanding work motivation, including goal setting theory (Locke & Latham, 1990) and job characteristics theory (Hackman & Oldham, 1980). Many psychological theories of motivation, such as Maslow's (1954) hierarchy of needs, are based on the idea that humans are motivated by the drive to satisfy certain needs. Some theories specifically address the role of work in satisfying those basic needs (e.g., Herzberg, Mausner, & Snyderman, 1959; Vroom, 1964; Weiss, Dawis, Lofquist, & England, 1966). Self-determination theories of motivation focus both on needs and on contextual factors and, though not originally formulated as a theory of work motivation, are predicted to explain motivation across contexts including organizations (Gagné & Deci, 2005).

Though multiple sub-theories of self-determination have been proposed (see Deci & Ryan, 1985a), all share similarities that differentiate them from other theories of work motivation. Specifically, a focus on three independent psychological needs – for autonomy, for competence, and for relatedness – distinguishes these theories from other approaches. Autonomy is defined as volition or the need "to self-organize and regulate one's own behavior" (Deci & Ryan, 2000, p. 252). "Autonomy concerns the extent to which people authentically or genuinely *concur* with the forces that do influence their behavior" (Ryan & Deci, 2000a, p. 330). Competence is effectance or the need "to engage optimal challenges and experience mastery or effectance in the physical and social worlds" (Deci & Ryan, 2000, p. 252). Finally, relatedness is the desire to feel connected to others, "to seek attachments and experience feelings of security,

belongingness, and intimacy with others" (Deci & Ryan, 2000, p. 252). These needs are predicted to be universal; the theory does not focus on individual differences in need strength, rather, the focus is on degree of satisfaction of these needs in different social contexts (Deci & Ryan, 2000). Self-determination theory (SDT) characterizes individual differences as "causality orientations (Deci & Ryan, 1985a) at the broadest level of generality, and as regulatory styles...at a more domain-specific level of generality" (Deci & Ryan, 2000, p. 232). However, though there may be individual differences in the degree to which individuals orient toward them, the needs for autonomy, control, and relatedness are predicted to be universal.

As previously discussed, need theories are not uncommon; however, SDT is the lone theory that prioritizes the need for autonomy. In fact, self-determination is often equated with autonomy (e.g., Ryan & Deci, 2000a), so the theory's name emphasizes the centrality of the concept of autonomy to the theory. Much SDT research aims to understand how autonomy can be affected by context and features of the context, such as messages. In particular, research focuses "on the relative strength of autonomous versus controlled motivation, rather than on the total amount of motivation" (Gagné & Deci, 2005, p. 340). The importance of the need for autonomy, though somewhat controversial, has been supported in lab experiments, self-reports of autonomy across situations and goals, and studies of conditions that facilitate autonomy (Ryan & Deci, 2006). For example, a meta-analysis (Deci, Koestner, & Ryan, 1999) supported the key role of perceived autonomy in intrinsic motivation. So, cues pertaining to autonomy are predicted to be particularly important to intrinsic motivation.

Comparable to other motivation theories and research, a focus of self-determination theories is understanding and predicting intrinsic motivation. In SDT, all three needs are proposed to affect intrinsic motivation. Originally, Deci (1975) defined intrinsic motivation somewhat tautologically as behavior motivated by "need for competence and self-determination" (p. 62). More recently, Deci and Ryan (2000) characterized intrinsically motivated behaviors as behaviors in which people engage because they enjoy them. Deci also identified two "classes" of behaviors as intrinsically motivated – those that are sought out to provide challenges and those that involve overcoming challenges. Central to self-determination theories is the claim that:

> "Despite the fact that humans are liberally endowed with intrinsic motivational tendencies...the maintenance and enhancement of this inherent propensity requires supportive conditions, as it can be fairly readily disrupted by various nonsupportive conditions. Thus, our theory of intrinsic motivation does not concern what causes intrinsic motivation...rather, it examines the conditions that elicit and sustain, versus subdue and diminish, this innate propensity." (Ryan & Deci, 2000b, p. 70)

Specifically, perceptions of cues regarding autonomy, competence, and, to a certain extent, relatedness will affect an individual's intrinsic motivation in a particular context. Though the three basic needs do not inherently conflict, social situations sometimes place accomplishment of the basic needs in opposition to one another. Self-determination theory focuses not only on identifying three basic needs, but also on examining environmental characteristics that facilitate or hinder their attainment (Ryan & Deci). Specifically, the focus on needs for competence and autonomy allows for "prediction of

the social circumstances and task characteristics that enhance versus diminish intrinsic motivation" (Deci & Ryan, p. 233).

Cognitive Evaluation Theory. Cognitive Evaluation Theory (CET; Deci 1975; 1971), a sub-theory of self-determination, focuses very closely on the distinction between autonomous versus controlled motivation. Research testing CET focuses on the effects of external factors, typically operationalized as rewards, on intrinsic motivation. In a meta-analysis of over 20 years of CET research including over 125 studies, Deci et al. (1999) detailed theoretical advances made since the original inception of CET. The central tenet of the theory states that intrinsic motivation is related to needs for autonomy and competence. The theory predicts that the presence of rewards can trigger feelings of autonomy, competence, control, or incompetence. In general, triggering feelings of autonomy or competence is predicted to increase intrinsic motivation, while triggering feelings of control or incompetence is predicted to decrease intrinsic motivation.

Reward types and their proposed relationship to intrinsic motivation have been modified and better specified as new reward types have been theorized in the literature (Deci et al., 1999). Rewards are classified as task-noncontingent, performance-contingent, and task-contingent. Task-noncontingent rewards do not require that a person complete a particular task and are thus predicted not to affect intrinsic motivation. Performance-contingent rewards are given for doing a task well, a determination often based on baseline- or other- comparisons. Performance-contingent rewards are predicted to reduce intrinsic motivation, unless they emphasize feelings of competence. If they trigger feelings of competence, they are predicted to increase intrinsic motivation. Finally, task-contingent rewards are divided into two subtypes. Completion-contingent

rewards are rewards that require completion of a task and are predicted to reduce intrinsic motivation in a way similar to engagement-contingent rewards. Engagement-contingent rewards require participation in an activity, but not its completion, and are predicted to reduce intrinsic motivation. In summary, positive feedback is predicted to increase intrinsic motivation in most situations. If, however, control is emphasized in a feedback message, then, feedback will be predicted to decrease intrinsic motivation.

The findings of the Deci et al. (1999) meta-analysis show empirical support for the tenets of CET. Results showed that task-noncontingent rewards do not affect intrinsic motivation. Performance contingent rewards were found to reduce intrinsic motivation, but the meta-analysis uncovered some inconsistencies in the research, so this support should be seen as more tentative. Both types of task-contingent rewards – engagement-contingent and completion-contingent rewards – were found to reduce intrinsic motivation. Finally, positive feedback was found to increase intrinsic motivation in college students, but positive feedback administered to emphasize control was found to reduce intrinsic motivation. An important moderator emerged. As the inherent attractiveness of the task varied, so did intrinsic motivation. Namely, rewards did not undermine intrinsic motivation for interesting activities. To summarize, CET states, and research that tests the theory supports, that rewards can influence intrinsic motivation.

Several findings and predictions from this body of research are of interest to the research being proposed in this paper. First, CET research focuses on substantiating the idea that certain environmental factors will affect intrinsic motivation (Ryan & Deci, 2000b). For example, feedback that emphasizes feelings of autonomy and control has been found to increase intrinsic motivation (Deci et al., 1999). Second, CET research

bolsters the claim of the centrality of perceived autonomy to intrinsic motivation because competence without autonomy does not increase intrinsic motivation (Ryan & Deci). In short, these findings are relevant because they suggest that messages (e.g., feedback or influence tactics) can affect motivation.

Self-Determination Theory and work motivation. Despite these insights, Gagné and Deci (2005) acknowledged that CET is ill-suited to understanding work motivation for several reasons. First, the nature of work contradicts many of the parameters specified in CET experiments. Most of those experiments measured time devoted to an intrinsically interesting puzzle task during a free period after receiving a particular feedback message. Though in an ideal world all work assignments and tasks would be attractive and engaging, work activities are not always intrinsically interesting. Further, most employees are engaged in work to earn money; in CET terms, most work results in the extrinsic reward of money and that "reward" is almost always task contingent. Second, and perhaps most problematic, most CET research focuses on externally regulated behaviors and contrasts them with intrinsic motivation. In terms of implications for organizations:

> "CET seemed to imply that managers and management theorists would have to focus...either on promoting intrinsic motivation through participation and empowerment while minimizing the use of extrinsic factors, or, alternatively, on using rewards and other extrinsic contingencies to maximize extrinsic motivation while ignoring the importance of intrinsic motivation." (Gagné & Deci, p. 333)

Self-determination theory (SDT; Deci & Ryan, 1985a; Ryan & Deci 2000b), of which CET is a sub-theory, offers better opportunity for application to organizations

because it addresses varied levels of extrinsic motivation. Typically, motivation is labeled as either intrinsic or extrinsic. For example, Krivonos (1978) distinguishes clearly between the two. "Motivation is intrinsic when the rewards for performing a task come from within the individual performing the task" (p. 53). To paraphrase, the drive is internal, rather than external. On the other hand, "extrinsic motivation...is exemplified by work that is done in order to accomplish some nontask goal...Extrinsic motivation refers to the performance of an activity because that activity leads to some external rewards" (Krivonos, p. 54). Obviously, these definitions contrast behavior that is intrinsically motivating with behavior that is extrinsically motivated. Often, intrinsic motivation is considered an ideal form of motivation; for example, CET research focuses on understanding how to increase intrinsic motivation.

However, as noted by Gagné and Deci (2005), intrinsic motivation, though perhaps ideal, conflicts with settings like organizations in which many contextual, or external, factors may also be extrinsically motivating to individuals. In particular, many work tasks are non-intrinsically motivating. "The real question concerning nonintrinsically motivated practices is how individuals acquire the motivation to carry them out" (Ryan & Deci, 2000b, p. 71). An underlying assumption of some research on motivation is that it can be affected by external factors. Pinder's (1998) definition of motivation speaks to this view. "Work motivation is a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior and to determine its form, direction, intensity, and duration" (p. 11).

Rather than dichotomizing motivation as either intrinsic or extrinsic, SDT predicts a continuum, which allows for extrinsic motivation to range from purely external to

internalized. These varied outcomes reflect the degree of internalization or the degree to which an individual has taken in "a value or regulation, and integration refers to the further transformation of that regulation into their own so that, subsequently, it will emanate from their sense of self" (Ryan & Deci, 2000b, p. 71). Rather than discussing motivation in terms of amotivation, extrinsic motivation, and intrinsic motivation, SDT proposes a continuum of internalization. In particular, the continuum distinguishes a range of extrinsic motivation, proposing that "extrinsically motivated behaviors may range from being determined largely by controls to being determined more by choices based on one's own values and desires" (Deci & Ryan, 1985a, p. 35).

The degree of internalization is related to different types of regulation (Deci & Ryan, 1985a; 2000). Non-regulation leads to amotivation, when people lack both extrinsic and intrinsic motivation and have no intention to behave. There are four types of regulation that result in different degrees of extrinsic motivation. First, external regulation results in what is typically (e.g., in CET research) identified as extrinsic motivation or compliance in influence research. Here, behavior is entirely based on external pressures. Second, introjection is somewhat similar to external regulation, but the pressure to perform a behavior comes from the individual (Deci Eghrari, Patrick, & Leone, 1994; Koestner & Losier, 2002). However, the behavior is not integrated into concept of self. Third, identification, though still instrumental, represents greater internalization because the individual recognizes the value of behavior. "Identified regulation occurs when a behavior is valued and perceived as being chosen by oneself" (Guay, Vallerand, & Blanchard, 2000, p., 177). Identified regulation leads "people [to] feel greater freedom and volition because their behavior is more congruent with their

personal goals and identities" (Gagné & Deci, 2005, p. 334). Fourth, integration is the most internalized form of extrinsic motivation. Integration results in a level of motivation that is comparable to intrinsic motivation. However, because the individual engages in the task due to its instrumental importance rather than due to simple interest and because the origin of the behavior is external, SDT does not classify this behavior as intrinsically motivated (Koestner & Losier). Both identified and integrated regulation can be considered forms of self-regulated extrinsic motivation because the individual is engaging in the behavior to obtain an external outcome but does so by his or her own choice (Baard, 2002). Though both can be compared to intrinsic regulation, which leads to intrinsically motivated behaviors, this type of regulation is distinct from all four forms of extrinsic motivation and from amotivation.

Recall that SDT asserts that people have three innate needs – for autonomy, for competence, and for relatedness. The theory further specifies that people are more likely to continue to pursue behaviors if they satisfy basic needs for autonomy and competence, with relatedness predicted to be a less central, more distally-satisfied need. The type of regulation is related to the sense of autonomy and competence that an individual has in a given context. Thus, amotivation is proposed to occur when there is no sense of autonomy or competence related to behavior. Ultimately, "social environments that block satisfaction of the need for autonomy promote controlled motivation" (Deci & Ryan, 2000, p. 250-251). Conversely, contexts that foster feelings of autonomy and competence will lead to greater integration; additionally, the individual's relationship with the external agent (such as a manager) also influences internalization (Ryan & Deci, 2000b).

Because of these distinctions, SDT is more readily applied to understanding organizational experiences than is CET. Based on previous SDT research, Gagné and Deci (2005) argued "that work climates that promote satisfaction of the three basic psychological needs will enhance employees' intrinsic motivation and promote full internalization of extrinsic motivation" (p. 337). SDT research in organizations has already considered diverse topics including the relationship between manager and employee ratings of motivation (e.g., Ilardi, Leone, Kasser, & Ryan, 1993; Kasser, Davey, & Ryan, 1992; Pelletier & Vallerand, 1996), SDT and job search behavior (e.g., Vansteenkiste, Lens, De Witte, De Witte, & Deci, 2004; Vansteenkiste, Lens, De Witte, & Feather, 2005), and SDT and work values (e.g., Vansteenkiste et al., 2007). Though SDT research in organizations is relatively new compared with the longer history of SDT research in educational settings, some preliminary evidence suggests that SDT provides a theoretical framework with predictive power in organizational contexts. SDT has informed models that predict organizational outcomes, including burnout (Fernet, Guay, & Senecal, 2004), acceptance of organizational change (Gagné, Koestner, & Zuckerman, 2000), turnover (Richer, Blanchard, & Vallerand, 2002), and feelings of empowerment coming from job characteristics (Gagné, Senecal, & Koestner, 1997).

The most relevant line of research to this study looks at the impact of managerial autonomy support on various outcomes. Managerial autonomy support is defined as "manager's acknowledging their subordinates' perspectives, providing relevant information in a non-controlling way, offering choice, and encouraging self-initiation rather than pressuring subordinates to behave in specified ways" (Gagné & Deci, 2005, p. 345). Several studies have found that the relationship between managerial autonomy

support and positive workplace outcomes is mediated by the three needs outlined in SDT. Deci, Connell, and Ryan (1989) found managerial autonomy support to be related to positive attitudes toward work. Baard, Deci, and Ryan (2000; as cited by Deci et al., 2001) found that need satisfaction mediates the relationship between autonomy support and work performance. This result was replicated by Deci et al., 2001), who found that need satisfaction mediates the relationship between autonomy support and engagement. Baard, Deci, & Ryan (2004) found that "opportunities for intrinsic need satisfaction are influenced by managers being perceived as autonomy-supportive and by subordinates' autonomous causality orientation" (p. 2061). However, this line of research has not progressed to the exploration of manager behaviors that led to employee perceptions of autonomy support (Gagné & Deci, 2005). In sum, the application of SDT to workplace issues has garnered support in initial studies, but many opportunities remain in this area.

Self-Determination, Motivation, and the Effects of Downward Influence

Thus far, two separate bodies of literature have been summarized. Downward influence researchers have identified tactics used by mangers when communicating job-related tasks to employees. Several of these tactics have been consistently associated with behavioral outcomes. Inspirational appeals, consultation, and strong rational persuasion have been consistently associated with commitment. Conversely, pressure tactics have been consistently associated with compliance and/or resistance and lower levels of commitment. Self-determination theorists have found support for their assertions that individuals have needs for autonomy, competence, and relatedness. The theory pays special attention to the role that particular social interactions and contexts play in

fostering feelings of autonomy, competence, and relatedness. In this focus on the role of interactions with others, the connection between the two areas of research can be made.

As mentioned previously, Yukl et al. (2005) stated that motivation affects the relationship between downward influence tactics and behavioral outcomes. However, this relationship was imprecisely described and also assumed but untested. Precedent for such a claim certainly exists. Indeed, that motivation is a natural goal of manager-employee communication seems to be a general assumption in the work motivation literature. "The degree of...motivation derived from a job may be contingent upon how much information is communicated to the employees" (Hanser & Muchinsky, 1980, p. 69). Additionally, the propositions and research of Cusella (1980; 1982; 1984) predicted that message content can evoke feelings of autonomy and provide information about competence.

Though SDT provides an opportunity to expand research on downward influence, downward influence research also provides an opportunity to expand research on SDT in organizations. Gagné and Deci (2005) make several propositions for the study of SDT in organizations. The fifth proposition is directly relevant here. This proposition asserts that "concrete managerial behaviors that support subordinates' autonomy in the workplace can be identified empirically" (Gagné & Deci, p. 350). SDT predicts that motivation comes not just from needs for autonomy, competence, and relatedness but also that particular contexts offer different opportunities to realize those needs. For example, research on autonomy-supportive managerial style (e.g., Baard et al., 2004; Deci et al., 2001; Deci et al., 1989; Richer & Vallerand, 1995) begs the question of which communicative behaviors influence perceptions of managerial autonomy support. "Little

work has been done in work settings to isolate concrete managerial behaviors that represent autonomy support...considerably more organization research exploring this issue needs to be done. (Gagné & Deci, p. 350). Following Gagné and Deci's thinking, messages from managers would certainly qualify as contextual factors. However, downward influence tactics are more than merely context. When used by managers, downward influence messages might act as a more direct source of motivation for employees by conveying information about the supportiveness of the situation. Downward influence tactics represent a set of important concrete managerial communicative behaviors that may support (or not support) employee needs for autonomy, competence, and relatedness.

Several connections between the two can be made that further justify the application of SDT to downward influence research. Perhaps the most obvious connection is the similarity between the three outcomes identified by Falbe and Yukl (1992) and the motivation continuum proposed by Deci and Ryan (1985a; 2000). Falbe and Yukl identify commitment as the most desirable outcome, followed by compliance and then resistance. Across studies, these three outcomes are measured in different ways. Sometimes the employee's level of commitment is measured on a scale, without directly measuring compliance or resistance (e.g., Yukl et al., 2005: Study 1; Yukl et al. 1999). In other instances, the participants were asked to identify which of the three outcomes was associated with the influence attempt (e.g., Falbe & Yukl, 1992; Yukl et al., 2005: Study 2, Yukl et al., 1996). These outcomes are positioned as both behavioral and cognitive. Recalling the definitions provided by Falbe and Yukl, both commitment and compliance include task completion on the part of the employee. However, a committed employee

demonstrates greater persistence and effort, whereas a compliant employee demonstrates minimal effort. The definitions of both outcomes specify different levels of buy-in and enthusiasm toward the task. A resistant employee attempts to avoid completing the behavior. Compare these outcomes to SDT, which proposes a continuum ranging from amotivation; to four types of extrinsic motivation – external regulation, introjection, identification, and integration; to intrinsic motivation. Ryan and Deci (2000b) also identified a range of the "quality of behavior" associated with the types of motivation and regulation varying along the continuum. Behavior quality ranges from non-self-determined to self-determined. This study aims, in part, to link this behavioral quality range to the downward influence range of commitment outcomes.

How comparable are the outcomes of downward influence messages and the SDT continuum? Ryan and Deci (2000b) make a connection by stating that "behavior can range from...unwillingness, to passive compliance, to active personal commitment" (p. 71). This statement suggests a conceptual overlay of downward influence behavior outcomes onto the SDT continuum. To start with the less desirable end of the continuum, both methodologies used for measuring responses to influence attempts (i.e., categorizing the outcome or rating level of commitment) make it difficult to ascertain how active an employee is in resisting an influence attempt. Thus, resistance here is equated with unwillingness, as did Ryan and Deci. External regulation maps closely to compliance as defined by Falbe and Yukl – an assertion reinforced by Ryan and Deci's assertion. In other words, compliance is likely to result when one feels externally regulated. Because downward influence is an external factor and an antecedent of a particular behavior, commitment maps to identification or integration rather than to intrinsic motivation. In

other words, commitment is likely to result when one experiences identified or integrated regulation. Though internalization may occur over time, Ryan and Deci also assert that any level of integration is possible at any time. This assertion complements the idea that identified regulation and perhaps even integrated regulation could occur as the result of a communication exchange with a manager if the characteristics of the influence message lead to feelings of autonomy, competence, and relatedness in the employee.

Hypotheses

Overall, the similarities between these two areas warrant consideration of motivation – and, more specifically, the continuum of motivation influenced by autonomy, competence, and relatedness as proposed by SDT – as a factor in the relationship between downward influence tactics and behavioral outcomes. Though a variety of downward influence tactics could be considered, for practical and theory-based reasons, this study will focus on only two – inspirational appeals and pressure tactics. Inspirational appeals "make a request or proposal that arouses enthusiasm by appealing to your values, ideals, and aspirations or by increasing your confidence that you can do it" (Yukl & Tracey, 1992, p. 526). Conversely, pressure tactics include demands, threats, warnings, and surveillance (Yukl & Tracey).

Out of the eleven tactics identified by Yukl and colleagues, inspirational appeals and pressure were selected as the focus of this study for several reasons. First, these two tactics share some conceptual connections with SDT, making them logical candidates for an initial inquiry. Research on CET has shown that "threats, deadlines, directives, pressured evaluations, and imposed goals diminish intrinsic motivation" (Ryan & Deci, 2000b, p. 70). The downward influence tactic of pressure is defined, in part, as the use of

threats and deadlines. Messages that display characteristics of inspirational appeals tactics may represent the "concrete managerial behaviors that represent autonomy support" discussed by Gagné and Deci (2005, p. 350). In particular, inspirational appeals suggest that employees can choose to contribute their skills to a larger vision, connecting with employees' internalized values. Also, in comparison with other downward influence tactics, inspirational appeals emphasize an idea of relatedness or connection.

Previous research findings also informed the focus on inspirational appeals and pressure tactics. Inspirational appeals and pressure have shown consistent associations with opposite outcomes – commitment and resistance. (Or, depending on the measurement, inspirational appeals are positively associated with commitment and pressure is negatively associated with commitment). As previously summarized, no other tactics have shown such consistent associations with those outcomes. Finally, the prevalence of their use suggests that a better understanding of why these tactics are associated with the previously discussed outcomes would be beneficial. As summarized in Table 2, inspirational appeals are one of managers' preferred tactics (as reported by both managers and their direct reports). Though Yukl and colleagues have not found pressure to be reported as a preferred tactic, these findings directly contradict the findings of Kipnis and colleagues, who found that assertiveness (which Yukl & Fable [1990] relabeled as pressure) was, in fact, a preferred tactic as reported by managers. In sum, consideration of theoretical reasons, associations with different levels of commitment, and manager- and employee-reported occurrence all informed the decision to focus on inspirational appeals and pressure tactics.

Based on the literature reviewed here, specific predictions can be made about how the relationships between the variables of interest will be affected by each of these two downward influence tactics. First, differences between measured outcomes are predicted based on which tactic is used. Specifically,

Hypothesis: Participants in the inspirational appeals condition will report higher levels of (*1a*) autonomy, (*1b*) competence, and (*1c*) relatedness than participants in the pressure condition.

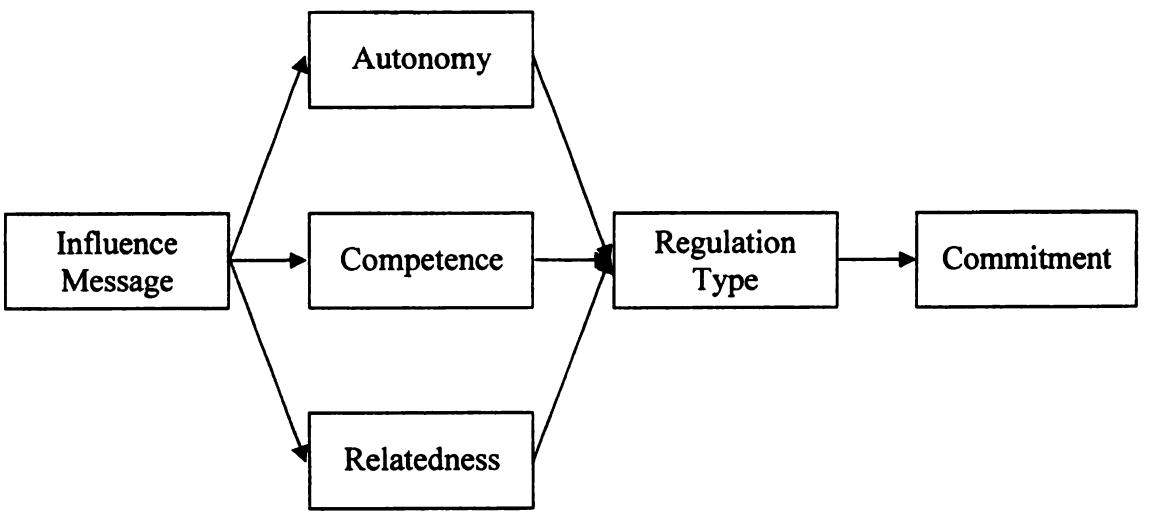


Figure 1. Proposed Theory-Based Model

Second, the theoretical model depicted in Figure 1 will be tested. This model proposes that the relationship between downward influence tactics (specifically inspirational appeals and pressure) and commitment is mediated by perceived autonomy, competence, and relatedness and perceived regulation. In other words, participants in the inspirational appeals condition would experience higher levels of perceived autonomy, competence, and relatedness, which would lead to identified regulation, which would be positively associated with commitment. Conversely, participants in the pressure condition would

experience lower levels of perceived autonomy, competence, and relatedness, which would lead to external regulation, which would be negatively associated with commitment.

Prestudy

Method

This study pretested versions of materials for potential use in the main study. Participants were 19 students enrolled in upper level communication classes who earned course credit for their participation. Twelve were female and 7 were male. Participants signed up for an individual study time. The procedure took less than one hour. Participants were told that they would complete two tasks, then complete measures evaluating those tasks, and then discuss the measures and the tasks with the experimenter. After providing consent, participants completed the two tasks presented in Appendix A. The first task was a résumé activity. Participants compared a résumé to a list of information gathered about a hypothetical job candidate and looked for potential inaccuracies in the résumé. Participants then evaluated the task in terms of task enjoyment. In the second task, participants were given an article to read and asked to summarize that information into a brief written presentation of the key information from the article. Participants then evaluated the task in terms of task enjoyment. After completing both activities, participants evaluated their level of commitment to the tasks. This data was used to evaluate the commitment measures.

The next step was for the experimenter to provide a list of instructions to the participants. These instructions were developed by the researcher based on the descriptions of inspirational appeals, pressure, and consultation provided by Yukl and colleagues. Two versions of each tactic were tested for a total of six instructions. After each of the six instructions, participants evaluated the instruction in terms of perceived implications for autonomy, competence, and relatedness. This data was used to evaluate

these instructions and the measures for potential use in the main study. After evaluating the instructions, participants discussed their impressions of the materials with the researcher. A complete version of the questionnaires used in the prestudy is included in Appendix A.

Results

The prestudy results informed which task and instructions would be proposed for the main study and pretested measures.

Table 3
Descriptive Statistics for Prestudy Data

	M	SD	Cronbach's α
Resume Enjoyment	5.02	0.93	.893
Summary Enjoyment	3.67	1.11	.936
Consultation 1 Autonomy	5.75	1.00	.814
Consultation 1 Competence	5.31	0.69	.662
Consultation 1 Relatedness	5.55	0.60	.77
Consultation 2 Autonomy	5.49	1.39	.952
Consultation 2 Competence	5.32	0.99	.886
Consultation 2 Relatedness	5.02	0.92	.87
Pressure 1 Autonomy	1.64	0.83	.876
Pressure 1 Competence	3.91	0.88	.841
Pressure 1 Relatedness	2.34	0.88	.879
Pressure 2 Autonomy	1.97	1.07	.876
Pressure 2 Competence	3.82	1.03	.913
Pressure 2 Relatedness	2.68	1.16	.936
Inspirational Appeals 1 Autonomy	5.43	1.25	.782
Inspirational Appeals 1 Competence	5.49	0.72	.847
Inspirational Appeals 1 Relatedness	5.46	0.81	.882
Inspirational Appeals 2 Autonomy	5.92	1.13	.938
Inspirational Appeals 2 Competence	5.39	0.85	.899
Inspirational Appeals 2 Relatedness	5.12	1.04	.918

The first goal of the prestudy was to determine which task participants enjoyed more. After completing each task, participants evaluated how much they enjoyed it by responding to the interest/enjoyment questions from the Intrinsic Motivation Inventory (IMI; 2007), which consisted of seven Likert-type items on a scale ranging from 1 (not at

all true) to 7 (very true). Two reverse-coded items were removed to increase the scale's reliability; Cronbach's α was .89 for the résumé evaluation and .93 for the summarizing information activity. Results are displayed in Table 3 and Figure 2. The mean enjoyment rating for the résumé activity ($M = 5.02$, $SD = .93$) was higher than the mean rating for the summarizing information activity ($M = 3.67$, $SD = 1.11$). In addition, when interviewed at the end of the experiment, 17 of the 19 participants reported a preference for the résumé activity.

The second goal of the prestudy was to determine how to best measure self-reported task commitment. Participants completed three types of commitment measures: a simple categorization (as used by Falbe & Yukl, 1992; Yukl et al., 2005: Study 2, Yukl et al., 1996), five semantic differential items, and six Likert-type items. Participants were asked in the interview which measure they felt best captured their level of commitment. Of 19 total participants, four preferred the resistance, compliance, and commitment categorization. However, several participants expressed a need for some choice between compliance and commitment to best reflect their commitment level. Seven participants liked the semantic differential best, but other participants found the format to be confusing. Eight participants thought that the Likert-type items best captured their commitment level. Because this format is most familiar and was preferred by 8 of 19 participants, this format will be used in the main study. In addition, two participants suggested that the three categories be converted to a Likert-type item to better capture the range between compliance and commitment. This recommendation is reflected in the main study measures.

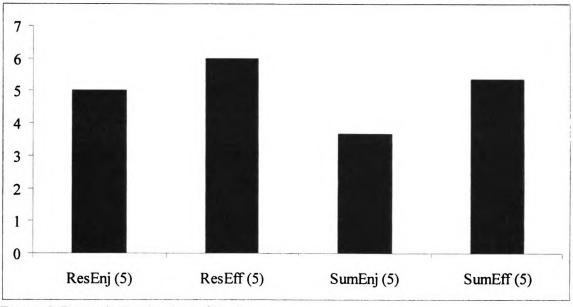


Figure 2. Prestudy Evaluation of Tasks

Finally, several potential versions of the instructions were tested in the prestudy. Participants read six instructions – two inspirational appeal instructions, two consultation instructions, and two pressure instructions. Strong rational persuasion could also be examined, but previous studies have focused on messages similar to strong rational persuasion (e.g., Deci et al., 1994; Reeve, Jang, Hardre, & Omura, 2002). After reading each of the six instructions, participants completed autonomy, competence, and relatedness measures. Results are displayed in Table 3 and Figure 3. The goal of this portion of the prestudy was to test instructions for use in the main study. As expected, participants reported lower levels of anticipated autonomy, competence, and relatedness after reading pressure instructions than they did after reading inspirational appeal or consultation instructions. Therefore, the two pressure instructions were combined and modified for the main study based on participant feedback on the most salient aspects of the messages and in order to be comparable in length to the inspirational appeal instructions. The inspirational appeal and consultation instructions resulted in fairly

similar evaluations of autonomy, competence, and relatedness. However, during interviews with the experimenter, participants expressed stronger preference for the inspirational appeals and a few made negative comments about the consultation instructions. Both tactics were tested because of their associations with commitment outcomes, but inspirational appeals make more theoretical sense to test (based on the reasons detailed previously) and are more consistently associated with commitment outcomes. Therefore, the two inspirational appeal instructions were combined and modified for the main study based on participant feedback on the most salient aspects of the messages and in order to be comparable in length to the pressure instructions.

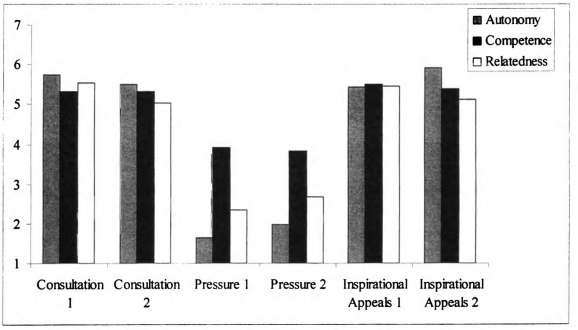


Figure 3. Prestudy Evaluation of Tactics

Main Study Method

Participants

The study had 300 total participants: 115 males (38.3%), 183 females (61.0%), and 2 (0.7%) who declined to identify their sex. The mean age of the participants was 20.96 with *SD* = 2.11, ranging from 18 to 39; most (77.7%) were juniors or seniors. The majority of participants were Caucasian (79%). Nearly all (92.7%) had previous work experience. The mean total work experience reported for those participants was 56.04 months with *SD* = 35.79, ranging from 2 to 306 months. The majority of participants (62.0%) were currently employed and reported working in their current position for a mean of 20.74 months with *SD* = 20.34, ranging from 1 to 102 months. Currently employed participants reported working an average of 18.98 hours per week with *SD* = 10.07, ranging from 1 to 50 hours per week. All participants were students enrolled in communication or political science courses at a large Midwestern university who received credit for their participation. The inspirational appeals condition had 101 participants; the pressure condition had 99 participants; the direct request/control condition had 100 participants.

Study Design

Participants signed up for a data-collection time. Each collection time was assigned to one of three experimental conditions. After providing consent, participants received one version of the instructions. The instructions constituted the experimental induction because they were modeled after downward influence tactics used to assign work. Specifically, participants received an inspirational appeals instruction, a pressure

instruction, or a direct request/control instruction. The inspirational appeals instructions read:

> "Your participation in this study is important to this area of research. Your work on this task will contribute not only to my research but will also help to advance theorizing in this area. By working on this task, you are participating in knowledge creation. To complete the task, read the article on the following page. Prepare a brief summary that you could use to share the article's main ideas with someone who does not have time to read it. Focus on identifying the techniques employers are using to reduce workloads. The summary should be written on the blank page following the article."

The pressure instructions read:

> "This task is what is required of you as a participant in this study, so you have to work on this task. I will be observing you to make sure you are doing what you are instructed to do and I will check to make sure you are working on the task while you are here. To complete the task, read the article on the following page. Prepare a brief summary that you could use to share the article's main ideas with someone who does not have time to read it. Focus on identifying the techniques employers are using to reduce workloads. The summary should be written on the blank page following the article."

The direct request/control instructions read:

> "To complete the task, read the article on the following page. Prepare a brief summary that you could use to share the article's main ideas with someone who does not have time to read it. Focus on identifying the techniques employers are

using to reduce workloads. The summary should be written on the blank page following the article."

Based on feedback gathered in the prestudy, the instructions were read by the experimenter (who was the same across all data collection times), projected onto a screen in the room, and also provided with the study materials for the participants to read themselves. To make sure the instructions (the experimental induction) were understood, each participant checked a box indicating that s/he understood the directions prior to beginning the task. The participants then worked on the task, completed measures evaluating the task, and provided demographic information.

Materials and Measures

Please see Appendix B for a complete set of the materials used in the main study.

Task. Based on the prestudy results, the information summary task was used in the main study. This task was chosen because prestudy participants reported lower levels of enjoyment for this task, which should more closely approximate standard work tasks and allow for a certain degree of mundane realism. One prestudy participant commented that the task reminded her of "the kind of thing [she]'d have to do at work." In addition, the task output (i.e., the list of information) showed a greater range of output. The article was slightly abbreviated from the version used in the prestudy to ensure that participants would have enough time to read it, summarize it, and complete the questionnaire.

Induction check. In order to measure whether participants felt pressured or inspired by the instructions, two induction check items were included in the survey materials. In response to the question "Why did you engage in this activity?," all 300 participants completed both a pressure and inspirational appeals induction check item.

The pressure item read, "Because I felt pressured by the experimenter's instructions." The inspirational appeals item read, "Because I felt inspired by the experimenter's instructions." There was no significant difference in perceived pressure across all three experimental conditions, $F(2, 297) = 0.36$, $p = .70$. Participants in the inspirational appeals and direct request/control conditions were significantly more "inspired" by the instructions than were those in the pressure condition, $F(1, 199) = 4.55$, $p < .05$.

SDT needs. The IMI used in the prestudy was also used in the main study. The IMI includes measures of autonomy, competence, and relatedness and was specifically designed for use in experimental research and has been developed across multiple studies over time. The version used in this study was obtained from the most complete version of the scale, which is available on the University of Rochester's Department of Psychology Self-Determination Theory website (2007).

Confirmatory factor analysis (CFA) using LISREL 8.80 (Jöreskog & Sörbom, 2006) with covariance matrices and reliability analysis were conducted using each individual's ($N = 300$) responses for both a three-dimensional solution and a unidimensional solution. The autonomy scale consisted of seven items; the competence scale consisted of six items; the relatedness scale originally consisted of eight items. CFA and reliability analysis with all 21 original items (NFI [Normed Fit Index] = .87, CFI [Comparative Fit Index] = .91, IFI [Incremental Fit Index] = .91, GFI [Goodness of Fit Index] = .81, AGFI [Adjusted Goodness of Fit Index] = .76, χ^2 [186, $N = 300$] = 753.57) suggested that two relatedness items, which measured trust for the experimenter, should be removed. Therefore, a CFA predicting a three-factor solution with the remaining 19 items was conducted (NFI = .89, CFI = .92, IFI = .92, GFI = .83, AGFI = .79, χ^2 [149, N

= 300] = 569.32). The fit of the three-dimensional 19-item solution was compared to that of a unidimensional 19-item solution (NFI = .64, CFI = .66, IFI = .66, GFI = .54, AGFI = .42, χ^2 [152, N = 300] = 2427.80). The fit of the three-dimensional solution showed a significant improvement, $\Delta\chi^2(3, N = 300) = 1858.48, p < .001$, over the unidimensional solution and suggested that use of the three-dimensional solution was appropriate. Cronbach's α for the seven-item autonomy scale was .89. Cronbach's α for the six-item competence scale was .87. Cronbach's α for the six-item relatedness scale was .76.

Extrinsic motivation type. Participants completed the Situational Motivation Scale (SIMS), which was developed and validated by Guay et al. (2000). The SIMS consists of four scales designed to measure intrinsic motivation, identified regulation, external regulation, and amotivation in experimental research. CFA and reliability analysis were conducted using each individual's (N = 300) responses for all four scales, testing both a four-factor and unidimensional solution. The fit of the four-dimensional solution (NFI = .89, CFI = .92, IFI = .92, GFI = .87, AGFI = .82, χ^2 [98, N = 300] = 354.97) showed a significant improvement, $\Delta\chi^2(6, N = 300) = 1669.10, p < .001$, over the unidimensional solution (NFI = .62, CFI = .64, IFI = .64, GFI = .54, AGFI = .40, χ^2 [104, N = 300] = 2024.07) and suggested use of the four-dimensional solution was acceptable. Cronbach's α for the four-item intrinsic motivation scale was .88. Cronbach's α for the four-item identified regulation scale was .67. Cronbach's α for the four-item external regulation scale was .87. Cronbach's α for the four-item amotivation scale was .69. Though all four scales was used in data collection to better understand the validity of the SIMS, only the scores for external and identified regulation were included in subsequent model testing

because SDT predicts that only those two types of regulation will be affected by external factors.

Commitment. Multiple methods were used to measure commitment. Based on the prestudy results, a Likert-type measure of commitment was used. Participants completed seven items to evaluate their level of commitment to the task. Most of these items were included in the prestudy; however, three of them were modified from the prestudy version in order to address some feedback gathered from prestudy participants. CFA and reliability analysis were conducted on the seven-item commitment scale. The CFA results suggest the scale showed acceptable fit for unidimensionality (NFI = .97, CFI = .98, IFI = .98, GFI = .96, AGFI = .93, χ^2 [14, N = 300] = 39.96). Cronbach's α for the seven-item commitment scale was .85. Two alternative measures of commitment were also collected.

The time to complete the task (including reading the article and summarizing its content) was an additional indicator of commitment. On page 3 of the study materials, participants summarized the content of the article. Text at the bottom of the page read: "Before moving on to the next page, write the time shown on the clock at the front of the room here." Questionnaires were originally grouped by data collection time, and the time recorded by participants at the bottom of this page was converted into minutes spent on the task. For example, a time of 11:01 in a session that began at 10:45 was entered as 16 minutes. Across conditions, the mean amount of time spent on the task was M = 11.53 minutes with SD = 3.41 and a range of 4 to 23 minutes.

The content of the summary completed by participants provided a third indicator of task commitment. Evaluation of the summary itself provides a behavioral indicator in keeping with the definition of commitment specified previously. After training, two naïve

coders independently evaluated each summary. Because the article focused on how employers are trying to improve work-life balance for employees, all participants were instructed to "write the techniques employers are using to reduce workloads" on page 3. The coders counted the number of unique techniques identified by each participant. This count provided an indicator of task commitment in the form of quantity. Inter-coder reliability was calculated by using *Krippendorff's Reliability for Windows v. 3.0.* For the count of the unique number of techniques identified, Krippendorff's $\alpha = .93$. Therefore, the mean number of techniques identified across both coders was used as a third measure of commitment. Across conditions, the mean number of techniques identified was $M = 5.05$, $SD = 2.12$, with a range of 0 to 11.

Hypothesis Testing

Descriptive statistics for each variable in the model are shown in Table 4.

Table 4
Descriptive Statistics across Conditions

		Inspirational Appeals	Pressure	Direct Request	Across Conditions
Autonomy	*M*	5.26	5.13	5.18	5.19
	SD	1.46	1.51	1.57	1.51
Competence	*M*	4.81	4.97	4.82	4.87
	SD	1.14	0.96	1.03	1.05
Relatedness	*M*	4.37	4.24	4.35	4.32
	SD	1.09	1.13	1.02	1.08
Intrinsic Motivation	*M*	2.73	2.34	2.61	2.57
	SD	1.25	1.11	1.23	1.20
Identified Regulation	*M*	4.31	4.14	4.31	4.25
	SD	1.34	1.42	1.32	1.36
External Regulation	*M*	3.26	3.27	3.12	3.22
	SD	1.69	1.65	1.70	1.67
Amotivation	*M*	2.40	2.46	2.40	2.42
	SD	1.13	1.15	1.13	1.13
Commitment Scale	*M*	4.68	4.72	4.77	4.72
	SD	1.07	1.01	0.88	0.99
Task Time	*M*	11.15	11.55	11.90	11.53
	SD	3.54	3.43	3.23	3.41
Number of Techniques Identified	*M*	5.16	4.85	5.15	5.05
	SD	2.11	2.17	2.08	2.12
Inspired Induction Check	*M*	2.26	1.86	2.26	2.13
	SD	1.46	1.16	1.43	1.37
Pressured Induction Check	*M*	1.56	1.52	1.43	1.51
	SD	1.20	1.12	0.94	1.09

To test the hypothesis, one-way analyses of variance (omnibus ANOVA) testing the differences across experimental conditions was conducted for autonomy, competence, and relatedness. Results are shown in Table 5. The results did not show a significant main

effect for experimental condition on any of the three predicted variables, indicating that the experimental conditions did not affect ratings differently. Thus, the data were not consistent with the hypothesis. Further ANOVA analysis revealed no main effects for experimental condition across any of the variables specified in the operationalized statistical model (shown in Figure 4).

Table 5
ANOVA Results for Differences across Conditions

	F	*df*	Sig.
Autonomy	0.192	2, 297	.83
Competence	0.74	2, 297	.48
Relatedness	0.44	2, 297	.65
Intrinsic Motivation	3.13	2, 297	.05
Identified Regulation	0.53	2, 297	.59
External Regulation	0.24	2, 297	.78
Amotivation	.08	2, 297	.92
Commitment Scale	0.23	2, 297	.79
Task Time	1.67	2, 291	.31
Number of Techniques Identified	0.66	2, 295	.52

Model Testing

Though no significant difference among conditions emerged, the proposed model was tested to better understand the results. The theory-based model presented in Figure 1 was operationalized to include the variables measured in the study. Figure 4 depicts the statistical model that was tested. In order to model the effects of the categorical independent variable (i.e., type of influence tactic), dummy variables were used. One (labeled "IA") compared the inspirational appeals condition to the pressure and direct request/control conditions and the other (labeled "P") compared the pressure condition to the inspirational appeals and direct request/control condition. The use of these two dummy variables in the model established the direct request/control condition as the reference group. Through use of dummy coding, the categorical experimental conditions

are captured quantitatively and can be further tested (Cohen, Cohen, West, & Aiken, 2003).

Next, a correlation analysis was performed. Results are shown in Table 6. As suggested by the ANOVA results, the experimental condition dummy variables were not significantly correlated with any of the other variables. However, the other variables did show significant correlations consistent with what would be predicted by the rest of the model if experimental condition is disregarded. For example, perceived autonomy (r = .34, $p < .01$), competence (r = .29, $p < .01$), and relatedness (r = .22, $p < .01$) are all positively correlated with reported identified regulation. Conversely, perceptions of autonomy (r = -.78, $p < .01$) and of competence (r = -.14, $p < .05$) are negatively associated with feelings of external regulation. Identified regulation and external regulation are negatively associated with one another (r = -.29, $p < .01$). Finally, identified regulation (r = .41, $p < .01$) is positively associated with but external regulation (r = -.23, $p < .01$) is negatively associated with commitment measured using the Likert-style scale. Identified regulation is significantly correlated with the other number of techniques identified; external regulation is correlated with neither task time nor the number of techniques identified. Because task time was not associated with any of the variables in the operationalized model and the number of techniques identified was related only to competence and identified regulation, the commitment scale was used in subsequent model testing as the sole indicator of commitment.

Finally, LISREL 8.80 was used to evaluate the fit of the predicted statistical model (see path diagram presented in Figure 4). The covariance matrix used in the analysis is presented in Table 7. Standardized maximum likelihood parameter estimates

are shown in Figure 4. Overall, the model does not appear to fit the data well (NFI = .76, CFI = .77, IFI = .78, GFI = .88, AGFI = .67, χ^2 [13, N = 300] = 160.50). These fit indices failed to meet the standard rule of thumb of .90 (Hoyle & Panter, 1995). Duplicating the ANOVA and correlation analysis results, none of the paths from experimental condition (operationalized here as dummy codes) to autonomy, competence, and relatedness were significant. The paths from autonomy and competence to identified regulation were significant and the path from autonomy to external regulation was significant. Finally, the paths from both identified regulation and external regulation to commitment were significant.

Post Hoc Model Testing

Because the induction check items suggested that feeling inspired or pressured was not associated with experimental condition, a post hoc model using the two induction check items as the exogenous variables was tested. The endogenous variables and the predicted relationships among them remained identical across both the original model and this exploratory model. Correlations between the variables in the model are shown in Table 8. LISREL 8.80 was again used to evaluate the fit of this alternative model; the covariance matrix used in the analysis is shown in Table 9. Standardized maximum likelihood parameter estimates are shown in Figure 5. With this model, the fit indices again failed to meet the standard rule of thumb of .90 (NFI = .79, CFI = .80, IFI = .80, GFI = .89, AGFI = .70, χ^2 [13, N = 300] = 143.52). Further modification of the model (see Figure 6) with direct paths added from autonomy, competence, and relatedness to commitment results in acceptable fit (NFI = .93, CFI = .94, IFI = .94, GFI = .96, AGFI = .84, χ^2 [10, N = 300] = 55.54).

Table 6

Correlations between Variables in Hypothesized Model

	1	2	3	4	5	6	7	8	9	10
1. IA [a]	–	-.50**	.03	-.04	.03	.03	.02	-.03	-.08	.04
2. P [b]		–	-.03	.07	-.05	-.06	.02	-.004	.004	-.07
3. Autonomy			–	.23**	.25**	.34**	-.78**	.39**	.10	.01
4. Competence				–	.21**	.29**	-.14*	.53**	.06	.27**
5. Relatedness					–	.22**	-.11	.30**	.02	.08
6. Identified Regulation						–	-.29**	.41**	.11	.18**
7. External Regulation							–	-.23**	-.07	-.004
8. Commitment Scale								–	.15**	.26**
9. Task Time									–	.20**
10.Number of Techniques Identified										–

[a] Inspirational Appeals vs. Pressure and Direct Request [b] Pressure vs. Inspirational Appeals and Direct Request

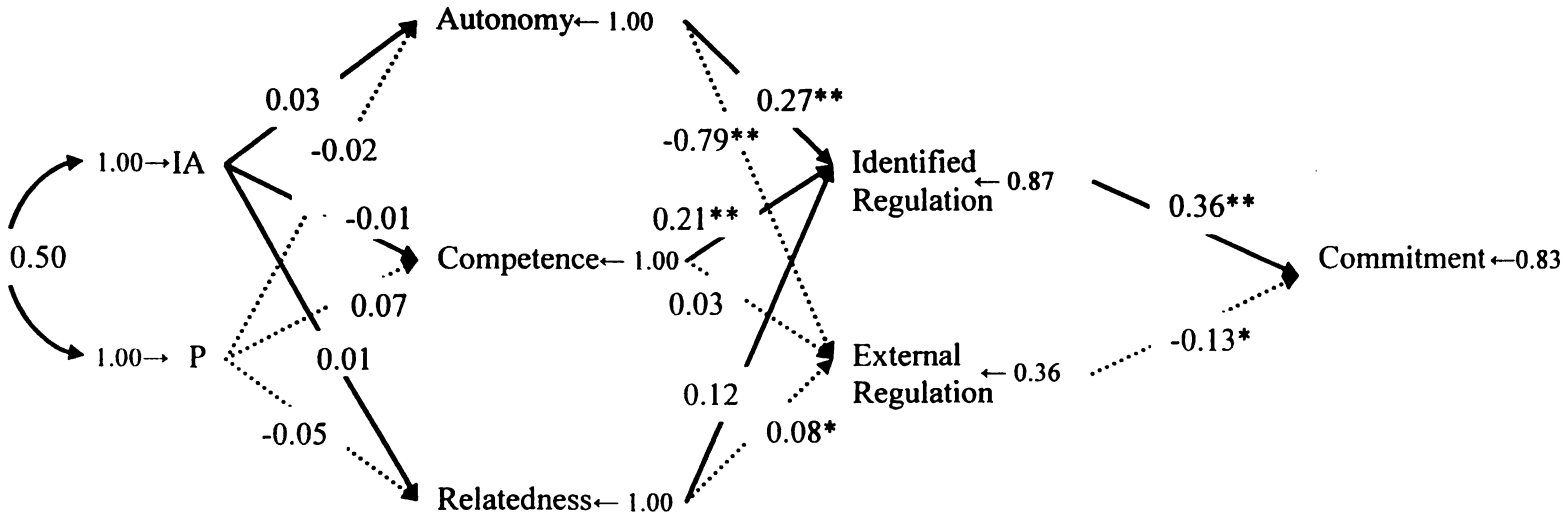
** $p < .01$ * $p < .05$

Table 7

Covariance Matrix for Hypothesized Model

	1	2	3	4	5	6	7	8
1. Autonomy	2.28	0.36	0.40	0.69	-1.98	0.58	0.02	-0.02
2. Competence		1.10	0.24	0.42	-0.24	0.55	-0.02	0.03
3. Relatedness			1.16	0.32	-0.20	0.32	0.02	-0.03
4. Identified Regulation				1.84	-0.66	0.54	0.02	-0.04
5. External Regulation					2.81	-0.39	0.01	0.02
6. Commitment Scale						0.97	-0.01	0.00
7. IA [a]							0.22	-0.11
8. P [b]								0.22

[a] Inspirational Appeals vs. Pressure and Direct Request [b] Pressure vs. Inspirational Appeals and Direct Request



df = 13
** $p < .01$ * $p < .05$

Figure 4. Operationalized Path Diagram with Standardized Parameter Estimates

Table 8

Correlations between Variables in "Feelings" Model

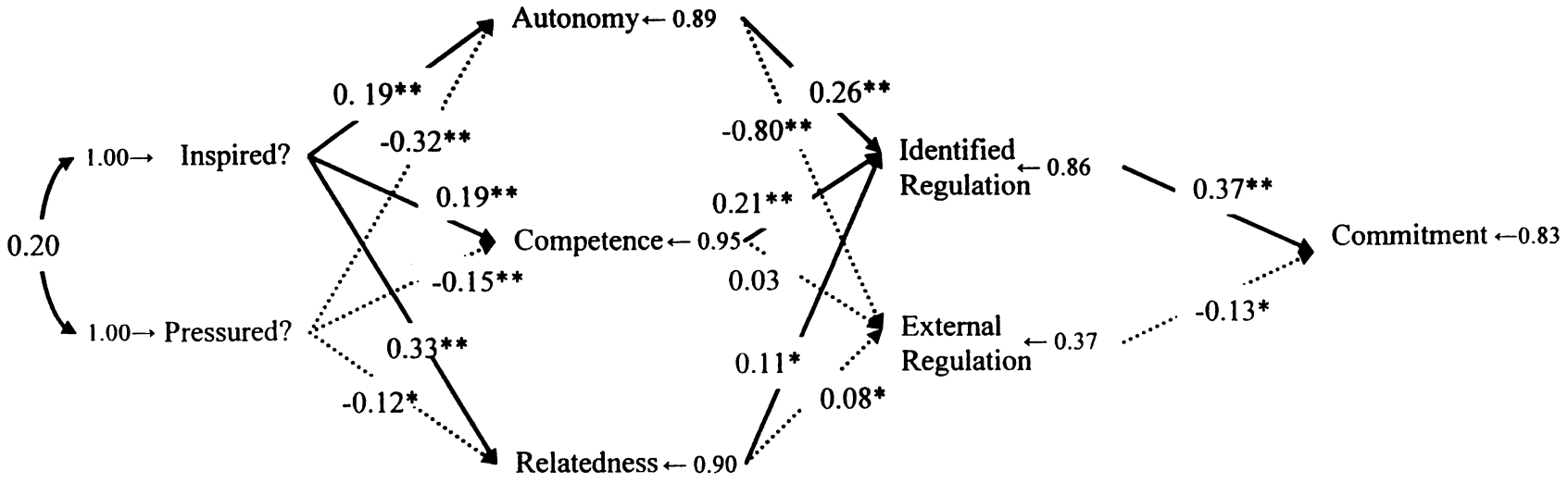
	1	2	3	4	5	6	7	8
1. Autonomy	–	0.23**	0.25**	0.34**	-0.78**	0.39**	0.13*	-0.28**
2. Competence		–	0.21**	0.29**	-0.14*	0.53**	0.16**	-0.11
3. Relatedness			–	0.22**	-0.11	0.30**	0.30**	-0.05
4. Identified Regulation				–	-0.29**	0.41**	0.22**	-0.13*
5. External Regulation					–	-0.23**	-0.06	0.27**
6. Commitment Scale						–	0.33**	-0.13*
7. Inspired?							–	0.20**
8. Pressured?								–

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

Table 9

Covariance Matrix for "Feelings" Model

	1	2	3	4	5	6	7	8
1. Autonomy	2.28	0.36	0.40	0.69	-1.98	0.58	0.26	-0.46
2. Competence		1.10	0.24	0.42	-0.24	0.55	0.23	-0.13
3. Relatedness			1.16	0.32	-0.20	0.32	0.45	-0.06
4. Identified Regulation				1.84	-0.66	0.54	0.41	-0.19
5. External Regulation					2.81	-0.39	-0.14	0.49
6. Commitment Scale						0.97	0.45	-0.14
7. Inspired?							1.87	0.30
8. Pressured?								1.19



df = 13
** $p < .01$ * $p < .05$

Figure 5. "Feelings" Path Model with Standardized Parameter Estimates

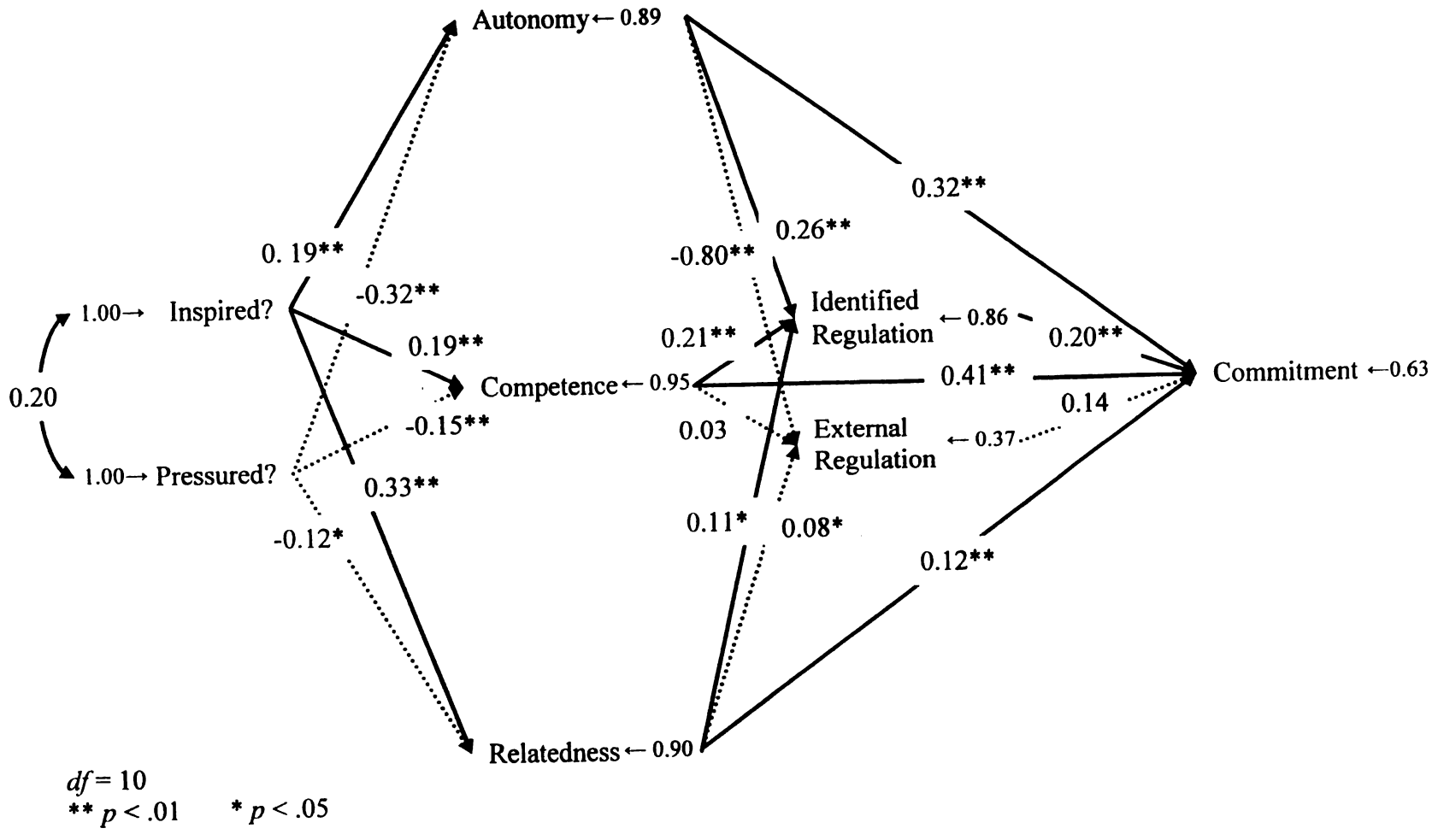


Figure 6. Modified "Feelings" Path Model with Standardized Parameter Estimates

Discussion

Summary of Findings

The central prediction of this study – that the relationship between downward influence tactics and commitment is mediated by the need for autonomy, competence, and relatedness and the associated type of regulation – was not consistent with the findings of ANOVA, correlation, or path model analyses. No difference in reported levels of autonomy, competence, or relatedness was associated with the type of influence message delivered by the experimenter. Further, the influence message did not appear to affect any of the variables specified in the proposed model. However, the variables showed relationships consistent with the rest of the theoretical model. Perceived autonomy was positively related to identified regulation but negatively related to external regulation. SDT suggests that autonomy is particularly important in determining perceived regulation and the data were consistent with that prediction. Identified regulation was positively associated with commitment, and external regulation was negatively associated with commitment. Though the findings do not directly connect downward influence tactics to SDT concepts, commitment – the outcome of interest in downward influence research – is linked to SDT concepts by these findings. To the researcher's knowledge, this study is the first that connects these two areas of research in this manner.

Though autonomy, competence, and relatedness were not affected by the influence tactic used, ratings of intrinsic motivation did show a statistically significant main effect for experimental condition (see Table 5). Specifically, participants in the inspirational appeals and direct request/control conditions reported significantly higher

levels of intrinsic motivation than did those in the pressure conditions. Though ANOVA analysis suggested that experimental treatment affected intrinsic motivation ratings, this finding does not necessarily warrant further exploration. Differences in intrinsic motivation across conditions are not consistent with previous research or theory. As detailed in the literature review, only external and identified regulation should be directly influenced by externally motivated activities, such as participating in this study. Intrinsic motivation is not supposed to be directly affected by external factors, according to SDT. As previously discussed, CET focuses on how rewards can affect feelings of autonomy/control and competence/incompetence, which subsequently influences how intrinsically motivated one feels. In CET terms, the reward (i.e., course credit) offered was task-noncontingent, meaning that participants did not have to complete the task to receive the reward. Meta-analysis results suggest that task-noncontingent rewards do not affect intrinsic motivation (Deci et al., 1999). However, if participants perceived the reward as task-contingent (i.e., that receiving credit was contingent upon engaging in or completing the task), the meta-analysis results suggest this may reduce their intrinsic motivation. The only theoretically consistent explanation for the finding would be that, for some reason, participants in the pressure condition were more likely to view their participation as task-contingent and their intrinsic motivation was subsequently reduced. However, CET predicts that intrinsic motivation is reduced as a result of individuals' decreased feelings of autonomy when rewards are task-contingent – a prediction that is inconsistent with the data in this study because the groups did not differ in perceived autonomy. In short, this particular statistically significant result does not really do much to inform the central aim of the study – to better understand the "why" of employee

commitment.

So, how do these results inform the questions brought up in the introduction? The central aim of this study was to understand why employees respond with higher levels of commitment to some influence tactics. Contrary to previous research on downward influence, in this study the influence messages were not associated with commitment. However, commitment was associated with the SDT variables introduced as mediators between the messages and commitment. So, while commitment was associated with autonomy, competence, relatedness, and regulation as predicted, its relationship with the downward influence messages was not present as predicted and the messages were unrelated to all of the SDT variables. If these results are viewed as definitive, SDT does not inform the "why" of employee commitment. However, several issues with the present study should be addressed before dismissing SDT as a possible answer to this question. A secondary aim of the study was to understand how downward influence tactics might inform SDT research. In particular, Gagné and Deci (2005) called for the identification of concrete managerial behaviors that contribute to employees' perceived autonomy. Again, the results of this study cannot directly contribute to Gagné and Deci's goal. However, some further explorations of downward influence may be able to answer this question.

Potential Areas to Explore

Ultimately, understanding why the different influence messages did not affect SDT-identified needs in this study is vital to moving forward with this area of research. Several possible explanations should be explored, including flaws in the study's methodology or in the conceptualization prior to the study. Three potential flaws in the study's design offer potential explanations for the results. First, the lack of significant

difference across conditions could be due to weak inductions. The inductions were tested in a prestudy, but the prestudy design may have affected those results in several ways. First, the sample size of the prestudy was rather small (19 students). The apparent effects of the different inductions could have been exaggerated by the small sample rather than due to the inductions themselves. Second, the order of the instructions was not varied across the 19 prestudy participants, which may have resulted in order effects. The participants first read consultation instructions, then pressure instructions, and finally inspirational appeals, which may have resulted in a more pronounced effect for both the pressure and inspirational appeals instructions. However, the induction check items suggest that, though there was no significant difference in perceived pressure across all three experimental conditions, participants in the inspirational appeals condition were significantly more "inspired" by the instructions than were those in the pressure condition. This result suggests that the inductions did not entirely fail.

The sample might offer a second methodological explanation for the lack of difference across experimental conditions. The majority of downward influence studies have been conducted with working adult samples reporting on their own managers' use of particular tactics. Because multiple factors may affect the relationships among the variables in an organizational setting, this study aimed to provide a context-free setting in which the effects of the influence messages using inspirational appeals and pressure tactics on the variables of interest could be measured. In addition to a greater level of control over the variables, this design did share some characteristics with many organizations that provided a level of mundane realism. First, participants participated in the study to earn course credit just as employees participate in work to earn a salary.

Second, the task in which participants engaged was not necessarily intrinsically interesting, comparable to work tasks. Finally, there is evidence (e.g., Milgram, 1974) to suggest that an experimenter is perceived to have a certain level of legitimate power, just as a manager in an organizational setting does.

However, a focus on the benefits of experimental control may have resulted in a lack of consideration given to the characteristics of a student sample that may have directly affected how they would respond to the use of the induction messages. Namely, students interacting with an experimenter differ in some important ways from employees interacting with their managers. Perhaps most importantly, student participants receive compensation (in the form of course credit) regardless of the quality of their participation and may withdraw at any time and still receive that compensation. This situation does not mirror that of employees, for whom performance is typically a factor in receiving compensation. Participating students may have been much more focused on receiving credit and the need to put in their "time" than on reacting to or even noticing the content of the messages the experimenter sent directing their participation. In short, perhaps the manager-employee relationship, despite its interference with experimental control, is a necessary context for gaining understanding of why particular manager influence tactics are positively associated with commitment.

A third methodological issue might be the task completed by participants, which may also have influenced the results in two ways. First, the article focused on work-life balance because it is a topic of interest to most young adults. Participants were asked to identify techniques employers were using to reduce workloads. However, the article's topic and the task focus on summarizing methods used to reduce workloads may have

inadvertently primed participants to put less work into the task itself. Across conditions, the participants may have been less motivated to participate as a result of the article's focus. Second, the information summary task was deliberately chosen because prestudy results suggested that it was not intrinsically motivating. Though work-life balance may be topical, the information summary task itself was not designed to be interesting. Choosing the less enjoyable task may have influenced participant responses to questionnaire items. Ultimately, how much inspiration or motivation can be induced to complete the information summary task? Selecting a less enjoyable task for the study was intended to contribute to its mundane realism but may have inadvertently affected how inspired, pressured, or motivated participants felt. Perhaps no matter how inspiring or pressure-inducing the influence messages were the uninteresting and mundane nature of the task would neutralize the inductions.

The reasoning that informed the study and the induction check items may also have been flawed. Downward influence tactic labels (i.e., "inspirational appeals" and "pressure") were used to generate the induction check items. Though the induction check was admittedly limited to one item for each tactic, the results suggest that some rethinking of a basic assumption of downward influence research might be fruitful. Specifically, the assumption that particular tactics make people feel inspired or pressured because researchers have labeled particular influence behaviors as "inspirational appeals" and "pressure tactics" may be flawed. In none of the three conditions did participants report feeling very pressured ($M = 1.51$, $SD = 1.09$) or very inspired ($M = 2.13$, $SD = 1.67$). Admittedly, this result may be due to a weak induction or to invalid induction check items. However, the inductions were derived directly from IBQ items measuring

both tactics and on the definitions of both tactics offered in previous downward influence research. Objectively, the experimental messages used the downward influence tactics of inspirational appeals and pressure. What if the tactics labeled by researchers as "inspirational" are not always inspiring to employees? What if the tactics labeled as "pressure" are not perceived as such by employees? Consideration of message effects may come uniquely from a communication perspective. By viewing influence behaviors as messages rather than as tactics, communication researchers could greatly inform downward influence research and, perhaps, help explain why particular tactics are linked to commitment.

Two post hoc models based on the idea that inspirational appeals and pressure tactics are not necessarily associated with feeling inspired or pressured were tested and presented in Figures 5 and 6. The idea behind these models is that feeling inspired should be associated with higher feelings of autonomy, competence, and relatedness, and that feeling pressured should lead to lower feelings of autonomy, competence, and relatedness; those feelings, however, were not necessarily associated with experimental condition in the study. Though exploratory in nature, the post hoc models do suggest potential for additional research. Whereas being in the pressure condition did not necessarily result in feeling more pressure, feelings of pressure were significantly negatively associated with autonomy, competence, and relatedness. Conversely, feeling inspired was significantly positively associated with autonomy, competence, and relatedness. The addition of paths directly from each of the SDT needs to commitment in the model depicted in Figure 6 is not inconsistent with the idea that particular tactics' associations with commitment are mediated by perceptions of autonomy, competence,

and relatedness. This modification simply suggests that, perhaps, the relationship between the SDT needs and commitment is not fully mediated by perceived regulation – an idea that can be tested in the future. Overall, these exploratory results are in keeping with the theoretical thinking that led to the original model and have interesting implications for further research.

Areas for Future Research

Of course, one additional possibility is that SDT is not a viable theory to understand why particular managerial influence tactics are associated with commitment. However, the lack of difference in autonomy, competence, and relatedness in response to different influence messages in one study should not automatically result in the assumption that influence messages have no effect on motivation defined as autonomy, competence, and relatedness. As discussed previously, the data were consistent with particular aspects of the model. Several avenues of future research applying SDT to downward influence research are available to better understand the "why" of employee commitment. In keeping with the weaknesses previously discussed, future research should address the issues of induction strength, sample, and message effects.

The issue of induction strength suggests multiple avenues for future research. Though the messages used in this study were pretested, certain characteristics of the prestudy may have inflated the effects seen in the prestudy. Additional instructions should be tested to determine whether a different ("stronger") induction would lead to the predicted experimental effects. In addition, understanding what inspires students to participate in research or what makes them feel pressure might aid in creating more effective messages embodying those two tactics. The difference in setting between the

prestudy and the main study may have also affected how the messages were perceived. Perhaps the inductions used in this study would have been effective if delivered in individual settings as they were in the prestudy and typically are at work. Testing other messages using some of the nine other tactics identified by Yukl and colleagues would also be important before wholly discounting the application of SDT to downward influence research.

Future research should also be conducted outside of the lab with a sample reflecting directly on their employment experiences. Participants would complete versions of the IBQ, IMI, a modified SIMS, and the Likert-type commitment scale so that the model depicted in Figure 1 could be retested. This data collection would focus on real-life interactions with managers and how they affect employees' perceived autonomy, competence, relatedness, regulation, and commitment. Such a design would avoid some of the issues with student samples discussed above. Use of the IBQ would also provide opportunity to explore whether associations exist among other tactics and SDT concepts.

Future research conducted with student samples should vary the task in several ways. In order to determine whether participants were primed by the article's content, a 3 x 2 design could be used with two different articles varied across three message conditions. Another possibility would be to discard the information summary task and use a task that would be more enjoyable to participants. If the effects of the induction messages were moderated by the task itself, changing the task to a more interesting one could solve this issue. In the prestudy, participants enjoyed the résumé activity and this activity would provide a work-like task for participants. CET research typically employs

intrinsically interesting puzzle games, and comparable tasks could be used in this line of research as well.

Potential also exists to move away from the application of SDT research in order to better understand downward influence tactics from a communication perspective. For example, communication research on persuasion reveals that receiver characteristics (e.g., personality traits) and sender characteristics (e.g., source credibility) can affect the impact of influence messages. Future research should measure these variables to check for direct or moderating effects. Revising the view of communication implicit in previous studies of downward influence might also provide a fruitful avenue of future research. Downward influence scholars appear to view manager-employee interactions using a linear model of communication, in which meaning is transferred from a sender to a receiver. Communication scholars view interactions as just that – interactive. Each participant will have a different understanding and perceive different meaning in the conversation. Applying this perspective to downward influence research in the manner discussed previously could result in a more nuanced understanding of the tactics and how they are viewed. For example, is consultation viewed as genuinely solicitive or as patronizing? What factors influence how these tactics are perceived by employees? How can the same tactic be interpreted differently by two different employees and result in drastically different responses? The post hoc models tested in this study begin to address this idea and should be tested in future research. Though not directly related to the application of SDT to downward influence research, these questions are an interesting corollary of the findings.

Practical Implications

Managers can take several ideas away from the findings of this study. If taken at face value, the results appear to suggest that influence messages do not affect autonomy, competence, and relatedness. However, the findings of one study are not definitive and assuming that managerial influence messages do not affect employee motivation would be premature. Further, motivation is affected by factors other than autonomy, competence, and relatedness; SDT is just one theory of motivation. In this study, participants receiving both inspirational appeals and direct requests were more inspired than those who received pressure tactics. If managers are aiming to inspire their employees, use of either approach appears preferable to the use of pressure. Interestingly, no statistically significant difference between inspirational appeals and direct requests was found for feeling inspired. This result may suggest that simply asking will have the same impact as attempting to inspire employees. Given the previous discussion of message effects, direct requests may provide a "safe" way to influence employees.

Conclusion

Though the study data are inconsistent with the proposed model, the results of this study are more nuanced than that simple statement. Overall, many of the predicted relationships in the model held. The results suggest that exploring the relationships between influence tactics and commitment in a more nuanced fashion can contribute to an understanding not only of why particular tactics are associated with particular outcomes, but also how those messages may be perceived differently in different situations and by different people. The lack of support for the proposed model exposes interesting questions about whether managers' influence messages are perceived by

employees in the same way that they are perceived by researchers and, further, why employees may interpret the same types of influence message in very different ways. This study exposes some underexplored complexities of manager's influence attempts and demonstrates how a communication-focused lens might tease out those complexities. In the overall pursuit to facilitate employee motivation, better understanding different interpretations of influence attempts may help to improve many manager-employee relationships. The possibilities for future research outlined here demonstrate the potential in this area.

APPENDICES

APPENDIX A

Prestudy Materials

Task 1: Résumé Activity

Below is a list of information gathered about a job candidate from references, former employers, and other research. Compare the information below to the candidate's résumé. Identify potential inaccuracies and mark them on the résumé.

Information

Education:

- Earned B.A. in business from Michigan State University
- Graduated in top 25% of class

In assistant job:

- Made sure the office ran smoothly every day by answering phones and taking about 25 messages
- Helped manager with the coordination of costs for a project that brought in more than $4,000 net revenue.
- Managed a portion of a database for two months for one of the sales departments in the company while the manager was away on maternity leave
- Assisted with the company's financial bookkeeping with software like Excel

In manager job:

- Promoted after only ten months to managerial positions
- Was responsible for supervision of two associates and allocated the daily tasks
- Participated in team to develop the strategic plan of the purchasing department to help the organization's objective of reducing costs
- Designed and created a system that improved the day-to-day operating procedures

Other activities:

- Went to Spanish classes to improve speaking and writing of Spanish
- Volunteered for an after-school tutoring program where tutored a group of 12 boys and girls

PAT SPARTAN
100 ABBOTT RD.
EAST LANSING, MI 48824

Education

- Bachelor of the Arts Degree in Business from Michigan State University
- Graduated at top of class

Work Experience

Manager, *Start-Up Company*

- Promoted to managerial position within six months
- Supervised/allocated tasks for four associates daily
- Created system to improve daily operations and save company thousands of dollars
- Led Purchasing Department's analysis/strategic plan to reduce costs

Assistant, *Start-Up Company*

- Answered phones and took 50+ messages daily to create efficient office
- Performed bookkeeping tasks using Excel
- Managed sales database while manager took three-month leave
- Coordinated costs for project that netted $5,000+

Skills

- Fluent in spoken and written Spanish
- Proficient in spoken Greek
- Experienced in Excel

Activities

- Tutored 10+ children for after-school program
- Awarded "Top Volunteer" honors

Task 2: Information Summary Activity

Read the following article. Prepare a brief summary that you could use to share the article's main ideas with someone who does not have time to read it. Focus on identifying the techniques employers are using to reduce workloads.

Taking Back the Weekend: Companies Help Employees Cut Back on Overwork
Sue Shellenbarger. Wall Street Journal. (Eastern edition). New York, N.Y.: May 18, 2006. pg. D.1

THE LAST PLACE most people would look to for help reducing their workload is their employer.

But that's exactly where John L. Williams got help last year cutting back his workday to a manageable length. Overloaded with unplanned phone calls and reports, Mr. Williams, an account executive at Cummins Inc., an engine manufacturer, had been taking work home and toiling as late as 2 a.m. on his laptop.

Luckily for him, Cummins had embarked on a pilot project to eliminate unnecessary work. Now Mr. Williams is getting more core job duties done at the office -- and getting to bed earlier.

At a time when most employers are piling on more work, a small but growing number of companies, including Alcan, Cummins, Eli Lilly, AstraZeneca, Texas Instruments and International Business Machines, are actually taking steps to reduce workloads. While corporate efforts to streamline work aren't new, the latest moves are different in two ways. They are driven by employee dissatisfaction, not budget-cutting. And they have two purposes -- not only increasing productivity, but improving work-life balance.

"Overwork has become the big issue right now," says Brad Harrington, executive director of the nonprofit Boston College Center for Work and Family. Solving the problem forces companies to go deeper than setting up new policies. "You can't create a policy that says, 'No more overwork.' It's too deeply embedded" in how companies operate, Mr. Harrington says. Tackling it requires deeper change.

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Team members began meeting biweekly to identify and cut out redundant work, Ms. Dunn says. They reduced unplanned phone calls and the number of sales-history and analysis reports they had to generate for salespeople, by referring requests to online resources. Customer- help teams also organized to back each other up on service calls, to avoid any one employee's getting backed up with complex jobs. Such changes helped

enable Mr. Williams, who works in a pricing unit, and more than 30 others to get more done during the workday, he says. Cummins plans to expand the pilot to other teams.

Similarly, at Alcan, based in Montreal, a 2005 survey of 55,000 employees revealed dissatisfaction with heavy workloads and long hours, says Steven Price, a human-resources director. In a series of steps, a half-dozen top executives got coaching on how to be better role models, partly by speaking up about their own challenges managing workload. Executives began encouraging employees "to push back and say, 'I'm not working on weekends as much,' " Mr. Price says. In Alcan's finance unit, employees were discouraged from working Sundays. The mandate was one of many improvements in processes that saved thousands of hours of work annually.

Elsewhere, some CEOs are calling on employees to speak up about scut work. At auto retailer CarMax, Richmond, Va., CEO Austin Ligon begins some monthly meetings by asking, "What are we doing that is stupid, unnecessary or doesn't make sense?" The question draws a laugh and gets employees engaged in improving their workplace, he says. A Naperville, Ill., general manager, for example, created a new time- saving process for parking cars.

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He and his managers trimmed meeting requirements, bought new equipment to reduce time spent quality-checking computer parts, and consolidated two labs, saving hundreds of work hours, he says. IBM has expanded the program in the U.S. and six other countries.

IBM technician Lou Colomban has benefited. In the past, he routinely told his wife he wouldn't be home until after dinner or much later on days he had to send out server

updates for corporate customers. The tedious process consumed much of his workday, while his regular tasks backed up. As part of the work-reduction program, Mr. Colomban suggested automating the process. The updates now run faster and smoother. "It's been a stress-reducer," he says.

Measures of Task Enjoyment (items 1-7) and Task Effort (items 8-12) (completed for each task)

Please indicate how true each of the following statements is for you using this scale:

1 2 3 4 5 6 7

not at all true somewhat true very true

1. _____ I enjoyed doing this activity very much
2. _____ This activity was fun to do.
3. _____ I thought this was a boring activity.
4. _____ This activity did not hold my attention at all.
5. _____ I would describe this activity as very interesting.
6. _____ I thought this activity was quite enjoyable.
7. _____ While I was doing this activity, I was thinking about how much I enjoyed it.
8. _____ I put a lot of effort into this.
9. _____ I didn't try very hard to do well at this activity.
10. _____ I tried very hard on this activity.
11. _____ It was important to me to do well at this task.
12. _____ I didn't put much energy into this task.

Commitment Measures

Which of the following best describes your response to being asked to complete these tasks?

CIRCLE ONE

- Resistance – I felt opposed to doing the tasks.
- Compliance – I felt like I had to complete the tasks, but I did not want to do it.
- Commitment – I felt motivated to do the tasks.

Which word best captures your response to being asked to complete these activities?

Place an "X" on the line you select.

Opposed _____ _____ _____ _____ _____ Motivated

Resistance _____ _____ _____ _____ _____ Compliance

Interested _____ _____ _____ _____ _____ Uninterested

Compliance _____ _____ _____ _____ _____

Commitment

Obligated _____ _____ _____ _____ _____ Excited

Please indicate how true each of the following statements is for you using this scale:

1 2 3 4 5 6 7

not at all true somewhat true very true

1. _____ I felt motivated to complete these tasks.
2. _____ I felt like I had to complete these tasks.
3. _____ I did not want to complete these tasks.
4. _____ I was engaged in the tasks.
5. _____ I felt committed to completing the tasks.
6. _____ I did not feel committed to completing these tasks.

Participants were given these six sample instructions. After each instruction, the participant completed the items listed below the instructions.

Instructions Tested

Inspirational Appeals

- "Your participation in this task is very important to the research I am doing. Your work on this task will help me understand how to present information in a way that's easy to understand. Your work on this task will really contribute to my research. By working on this task, you will help me and other scholars to better understand how to present information in a way that's easy to understand."
- "Working on this task is an opportunity to do something worthwhile. Your work could help me and other scholars better understand how to present information in a way that's easy to understand. Your participation can really add to our understanding of how to present information in a way that's easy to understand."

Consultation

- "This task is something I'm pre-testing right now. I would like your feedback on the task before I do a larger study. I hope you'll share any problems you see with this task while you complete it. While you complete this task, please note any suggestions that you feel would make it easier to complete. I really want to hear your opinions on the task so I please share any suggestions or comments you have."
- "I would like you to suggest things and share your ideas about the task you are going to complete. I want to encourage you to express any concerns you have about this activity. Right now, I am pre-testing this task. I hope you will help me to improve it."

Pressure

- "This task is what is required of you as a participant in this study. You must work on the task. I will check to be sure you are doing the task. When I come in, you need to be working on the task."
- "You need to work on this task. I will be observing you to make sure you are doing what you are instructed to do. You must work on the activity while you are here."

For each of the six instructions, participants responded to the following questions.

Items to Measure Effects of Instructions

For each of the following statements, please indicate how true it is for you, using the following scale:

1	2	3	4	5	6	7
not at all true			somewhat true			very true

Perceived Competence

I think I would be pretty good at this activity.
I think I would do pretty well at this activity, compared to other students.
After working at this activity for awhile, I would feel pretty competent.
I would be satisfied with my performance at this task.
I will be pretty skilled at this activity.
This is an activity that I couldn't do very well. (R)

Perceived Autonomy

I believe I have some choice about doing this activity.
I feel like it is not my own choice to do this task. (R)
I do not really have a choice about doing this task. (R)
I feel like I have to do this. (R)
I will do this activity because I have no choice. (R)
I will do this activity because I want to.
I will do this activity because I have to. (R)

Relatedness

I feel really distant to the person giving me these instructions. (R)
I really doubt that this person and I would ever be friends. (R)
I feel like I could really trust this person.
I'd like a chance to interact with this person more often.
I'd really prefer not to interact with this person in the future. (R)
I don't feel like I could really trust this person. (R)
It is likely that this person and I could become friends if we interacted a lot.
I feel close to this person.

The experimenter took notes while discussing these questions with the participant.

Interview Items

1. Which task did you prefer?
   - ☐ Resume activity
   - ☐ Summarizing information

   Why?

2. How much time should be allotted for each task?
   _____ Resume activity _____ Summarizing information

3. Of the items you completed measuring your commitment to the task, which do you feel best captured how committed you were?

4. What did you think of the instructions the experimenter read to you?
   - Easy to follow?
   - Easy to understand?

5. Do you think these instructions should be spoken, written, or both?

6. Did you feel you were able to respond to the questions evaluating the instructions?
   - If no, why not?
   - What would make it easier for you to respond to the questions evaluating the instructions?

7. Anything else you'd like to comment on regarding any of the materials?

APPENDIX B

Main Study Materials

Instructions to Test

Note: These instructions were read by the experimenter, projected on a screen in the room, and also presented as the first page of the study packet received by each participant.

Participants in the inspirational appeals condition received the following instruction:
"Your participation in this study is important to this area of research. Your work on this task will contribute not only to my research but will also help to advance theorizing in this area. By working on this task, you are participating in knowledge creation.
"To complete the task, read the article on the following page. Prepare a brief summary that you could use to share the article's main ideas with someone who does not have time to read it. Focus on identifying the techniques employers are using to reduce workloads. The summary should be written on the blank page following the article."
☐ ← Check to indicate that you understand these instructions; then, turn the page to start the task.

Participants in the pressure condition received the following instruction:
"This task is what is required of you as a participant in this study, so you have to work on this task. I will be observing you to make sure you are doing what you are instructed to do and I will check to make sure you are working on the task while you are here.
"To complete the task, read the article on the following page. Prepare a brief summary that you could use to share the article's main ideas with someone who does not have time to read it. Focus on identifying the techniques employers are using to reduce workloads. The summary should be written on the blank page following the article."
☐ ← Check to indicate that you understand these instructions; then, turn the page to start the task.

Participants in the direct request/control condition received the following instruction:
"To complete the task, read the article on the following page. Prepare a brief summary that you could use to share the article's main ideas with someone who does not have time to read it. Focus on identifying the techniques employers are using to reduce workloads. The summary should be written on the blank page following the article."
☐ ← Check to indicate that you understand these instructions; then, turn the page to start the task.

Information Summary Task

The last place most people would look to for help reducing their workload is their employer. At a time when most employers are piling on more work, a small but growing number of companies, including Alcan, Cummins, Eli Lilly, AstraZeneca, Texas Instruments and International Business Machines, are actually taking steps to reduce workloads. While corporate efforts to streamline work aren't new, the latest moves are different in two ways. They are driven by employee dissatisfaction, not budget-cutting. And they have two purposes -- not only increasing productivity, but improving work-life balance.

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He and his managers trimmed meeting requirements, bought new equipment to reduce time spent quality-checking computer parts, and consolidated two labs, saving hundreds of work hours, he says. IBM has expanded the program in the U.S. and six other countries.

Adapted from: **Taking Back the Weekend**: Companies Help Employees Cut Back on Overwork. Sue Shellenbarger. Wall Street Journal. (Eastern edition). New York, N.Y.: May 18, 2006. pg. D.1

Commitment Measures

Please indicate how true each of the following statements is for you using this scale:

1	2	3	4	5	6	7
not at all true			somewhat true			very true

I felt motivated to complete this task.

I did not want to complete this task.

I was engaged in this task.

I felt committed to completing this task.

I felt excited about completing this task.

Which of the following best describes your response to being asked to complete these tasks?

1	2	3	4	5	6	7
resistance			compliance			commitment

Which of the following best describes how you felt about being asked to complete these tasks?

1	2	3	4	5	6	7
opposed			required			motivated

The Intrinsic Motivation Inventory (IMI)

Directions: Read each item carefully. For each statement, please indicate how true it is for you, using the following scale:

1	2	3	4	5	6	7
not at all true			somewhat true			very true

1. I think I was pretty good at this activity.
2. After working at this activity for awhile, I felt pretty competent.
3. I am satisfied with my performance at this task.
4. I believe I had some choice about doing this activity.
5. I did this activity because I wanted to.
6. I did this activity because I had no choice. (R)
7. I felt like I could really trust the experimenter.
8. I'd like a chance to interact with the experimenter more often.
9. It is likely that the experimenter and I could become friends if we interacted a lot.
10. I feel close to the experimenter.
11. I think I did pretty well at this activity, compared to other students.
12. I was pretty skilled at this activity.
13. This was an activity that I couldn't do very well. (R)
14. I felt like it was not my own choice to do this task. (R)
15. I didn't really have a choice about doing this task. (R)
16. I felt like I had to do this task. (R)
17. I did this activity because I had to. (R)
18. I felt really distant to the experimenter. (R)
19. I really doubt that the experimenter and I would ever be friends. (R)
20. I'd really prefer not to interact with the experimenter in the future. (R)
21. I don't feel like I could really trust the experimenter. (R)

Autonomy: Items 4, 5, 6, 14, 15, 16, 17
Competence: Items 1, 2, 3, 11, 12, 13
Relatedness: Items 7, 8, 9, 10, 18, 19, 20, 21

The Situational Motivation Scale (SIMS; Guay, Vallerand, & Blanchard, 2000)

Directions: Read each item carefully. Using the scale below, please circle the number that best describes the reason why you engaged in this activity. Answer each item according to the following scale:

1	2	3	4	5	6	7
not at all true			somewhat true			very true

Why did you engage in this activity?

1. Because I think that this activity is interesting
2. Because I am doing it for my own good
3. Because I am supposed to do it
4. There may be good reasons to do this activity, but personally I don't see any
5. Because I think that this activity is pleasant
6. Because I think that this activity is good for me
7. Because it is something that I have to do
8. I did this activity but I am not sure if it is worth it
9. Because this activity is fun
10. By personal decision
11. Because I don't have any choice
12. I don't know; I don't see what this activity brings me
13. Because I feel good when doing this activity
14. Because I believe that this activity is important for me
15. Because I feel that I have to do it
16. I did this activity, but I am not sure it is a good thing to pursue it
17. Because I felt pressured by the experimenter's instructions
18. Because I felt inspired by the experimenter's instructions

Intrinsic motivation: Items 1, 5, 9, 13
Identified regulation: Items 2, 6, 10, 14
External regulation: Items 3, 7, 11, 15
Amotivation: Items 4, 8, 12, 16
Induction check: Items 17, 18

Demographic Information

How old are you? _____

Sex

☐ Male	☐ Female

Ethnicity

☐ Caucasian	☐ African American
☐ Native American	☐ Asian American
☐ Hispanic	☐ Pacific Islander
☐ Mixed	☐ Other

Education Level (Please indicate your current academic standing.)

☐ freshman	☐ sophomore
☐ junior	☐ senior
☐ graduate	☐ other

Do you have any employment experience?

☐ Yes	☐ No

How much work experience do you have? Years_____ and Months_____

Industry Experience (Please indicate the industry in which the majority of your work experience took place.) **CHECK ONLY ONE.**

☐ admin/support	☐ consulting
☐ education	☐ factory/assembly line
☐ finance	☐ food service/restaurant
☐ healthcare	☐ management
☐ marketing	☐ media
☐ non-profit	☐ physical labor
☐ professional/office environment	☐ public service
☐ public relations	☐ retail/sales
☐ technology	☐ other

Experience Level (Please indicate the level at which you spent most of your work experience.) **CHECK ONLY ONE.**

☐ line/entry level	☐ mid-management level
☐ senior-management level	☐ self-employed
☐ other	

Are you currently employed?

☐ Yes	☐ No

Please indicate the category that best describes your current job. **CHECK ONLY ONE.**

☐ admin/support	☐ consulting
☐ education	☐ factory/assembly line
☐ finance	☐ food service/restaurant
☐ healthcare	☐ management
☐ marketing	☐ media
☐ non-profit	☐ physical labor
☐ professional/office environment	☐ public service
☐ public relations	☐ retail/sales
☐ technology	☐ other

How long have you been in your current job?

Years_____ and Months_____

How many hours do you work per week on average in your current job? _____

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