Do Coworkers Make the Place?

Conceptual Synthesis and Meta-Analysis of Lateral Social Influences in Organizations

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Abstract

We propose that broad aspects of lateral relationships, conceptualized as *coworker support* and *coworker antagonism*, are linked to important individual employee outcomes (role perceptions, work attitudes, withdrawal, and effectiveness) in a framework that synthesizes several theoretical predictions. From meta-analytic tests based on 161 independent samples and 77,954 employees, we find support for most of the proposed linkages. Alternative explanations are ruled out, as results hold when controlling for leader influences and mediation processes. We also observe differential strengths of coworker influence based on its *valence*, *content*, and *severity*, and on the *social intensity* of the task environment. We conclude with a call for more comprehensive, complex theory and investigation of coworker influences as part of the social environment at work.

*Keywords*: influence, social support, coworkers, antagonism, lateral relationship

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Coworkers are not only a vital part of the social environment at work; they can literally define it (Schneider, 1987). For some employees, coworkers might exemplify Sartre’s famous admonition that “hell is other people” (Sartre, 1944). For others, “heaven is the work of the best and kindest men and women” (Butler, 1912). In less colorful terms, individuals in every type of organization have coworkers who are partners in social and task interactions. In the U.S. for example, 90.2 percent of employees likely have coworkers: other individuals situated in the same stratum of an organizational hierarchy and with whom one executes tasks and has routine interactions (Cohen & Syme, 1985) – that is, others one works alongside on a day to day basis (Fairlie, 2004), and who can both support and antagonize their colleagues.

The importance of coworkers is magnified by several recent firm- and job-related trends. Flatter organizational structures and increased team-based work translate into more frequent and more meaningful lateral interactions. Again in the U.S., 82 percent of companies with 100 or more employees use teams; 90 percent of U.S. employees spend at least part of their work days in teams (Cascio, 1998; Gordon, 1992). The trend is also rising in the European Union, with more than half of the countries reporting at least 55 percent teamwork (European Foundation for the Improvement of Living and Working Conditions, 2007). Likewise, the shift of job content from steady and routine individual tasks to more complex and collective tasks (Harrison, Johns, & Martocchio, 2000) has enhanced coworkers' salience and their potential influence.

Applied psychological investigations of coworker influence have maintained a steady but somewhat fragmented presence in the scholarly literature. For example, there is now cumulative evidence about how social support from coworkers is related to individuals’ stress (Viswesvaran,
Sanchez, & Fischer, 1999), burnout (Halbesleben, 2006), and physical strains (Schwarzer & Leppin, 1989). Some studies have connected either positive or negative behaviors originating from coworkers to individual work outcomes other than health (Duffy, Ganster, & Pagon, 2002; Sherony & Green, 2002), assimilation of that evidence is impeded by research being anchored in theoretical vantage points created for other purposes (including those for leadership). That is, despite the existence of a potentially large set of primary investigations that examine coworker variables, studies are disparate and no broad conceptual or empirical synthesis has been made. Thus, important questions about how coworkers "make the place" for individuals (focal employees) remain not only unanswered, but in some cases, unasked.

To advance our understanding of how coworkers matter, in the current paper we formulate several fundamental questions. Specifically, are influences originating from coworkers substituting or overlapping with those stemming from other members of the social environment such as leaders; are coworker effects unique? If so, how strongly are coworker influences linked to individual outcomes? Are those linkages mediated (indirect) or unique (direct)? Further, are the linkages systematically stronger or weaker for particular dimensions of coworker influence, and for particular types of employee outcomes? Finally, do specific job demands accentuate or attenuate links to coworker influences? All of these questions can start to be addressed by systematically cumulating and comparing effect sizes from existing studies, using an integrative framework.

Our first two objectives, then, are (a) to develop such a framework for examining coworker influences on focal employee work experiences, separately from other elements in the employee's social environment, and (b) to test its viability through meta-analysis. This helps us build a comprehensive summary of what is known about how lateral influences may or may not
help "make the place" for individuals (Schneider, 1987). We organize our predictor space based on the tenets of interdependence theory: coworkers can provide different valences of influence, positive (social support) and negative (antagonism) to their colleagues (Thibaut & Kelley, 1959). With respect to individual criteria, we investigate the relationship between what coworkers provide or do, and their colleagues’ individual role perceptions, work attitudes, withdrawal, and effectiveness (see Figure 1). Importantly, a third objective (and one that serves as premise for the first two) is (c) to use cumulative evidence to clarify the uniqueness of coworkers’ from leaders’ influences, by accounting for and comparing how strongly coworkers and leaders influence work outcomes when considered simultaneously, across a large number of studies. A fourth objective deals in a different way with uniqueness of effects. Specifically, we (d) examine whether coworker influences contribute to individual effectiveness outcomes directly, or indirectly, through the shaping of colleagues’ role perceptions and work attitudes. Finally, a fifth objective is (e) to refine theory and sharpen guidelines for interventions by examining how our main linkages are modified by more nuanced aspects of coworker influences: the content of support provided by coworkers (e.g., instrumental or affective), the severity of coworker antagonistic behavior (e.g., incivility to aggression), and the social intensity of tasks and jobs.

Direct Effects: Coworker Influences on Individual Employee Outcomes

Uniqueness of Coworker from Leader Influences

Do coworkers matter, even after leaders are accounted for? If not, then our proposed synthesis is much less useful. Therefore, we put that conjecture to empirical test before specifically testing links between coworker influences and individual outcomes. Employees have interactions with leaders and coworkers, and both types of relationships can be positively
and negatively valenced. Theoretically, leaders can be supportive or antagonistic (Fiedler, 1996; Tierney & Tepper, 2007); similar possibilities exist for coworkers. Despite valence-based similarities, however, there is likely to be more discretion in lateral than in vertical exchanges. Vertical relationships are governed by authority ranking, as opposed to equality matching (Fiske, 1992), and coworker exchanges are based on reciprocation (Gouldner, 1960) and turn-taking (Kelley & Thibaut, 1978). Further, because of their greater presence relative to leaders in almost any organization, employees are likely to interact more frequently with their coworkers (Ferris & Mitchell, 1987). The repository of emotional and behavioral resources from coworkers is thus larger and easier to draw from than the leader-based one. More frequent coworker interactions are also more likely because they have generally the same status as the focal employee (by definition), and exchanges of all types are less restricted. Coworkers should, then, have a non-trivial influence on colleagues’ role perceptions, attitudes, withdrawal, and effectiveness, even in the presence of other influences originating from the direct leader.

As we present in more detail below, those (unique) effects likely differ for different valences of coworker influences. Following Cutrona and Russell (1987) and extending Thibaut and Kelley’s (cost versus benefit; 1959) treatments, we refer to positively-valenced coworker influence as support, and negatively valenced as antagonism. Coworker support is the provision of desirable resources to a focal employee, including task-directed helping (Caplan, Cobb, French Jr., Harrison, & Pinneau Jr., 1975), coworker mentoring (Ensher, Thomas, & Murphy, 2001), and friendliness or positive affect (Morgeson & Humphrey, 2006). On the other hand, coworker antagonism is the enactment of unwelcome, undesirable or disdained behaviors toward a focal employee, such as incivility (Andersson & Pearson, 1999), social undermining (Duffy et al., 2002), and interpersonal abuse (Bruk-Lee & Spector, 2006).
**Hypothesis 1a-b.** Coworker (a) support and (b) antagonism have a unique effect on focal employees’ outcomes beyond that of leader influences.

**Coworker Support and Individual Role Perceptions**

Lateral social influences on an individual's *role perceptions* are central to role-sending and receiving theories (Katz & Kahn, 1978). Roles are defined as sets of behavioral expectations associated with given positions in a social structure. Coworkers offer information and engage in behavioral support for some activities while discouraging others, helping to shape a colleague's beliefs about what he or she should (not) do (Ilgen & Hollenbeck, 1991; Kram & Isbella, 1985). Both newcomers and veteran employees seek such advice, instruction, and help primarily from coworkers, due to their perceived similarity (Gibson, 2003; Morrison, 1993; Seers, 1989).

Given coworkers’ positions as role senders (Van Sell, Brief, & Schuler, 1981) and as members of a focal employee's role set (Katz & Kahn, 1978) they can influence several role components. Specifically, coworkers relay task advice that diminishes their colleagues’ *role ambiguity*: uncertainty experienced about behavioral expectations. Role ambiguity is composed of the relative unpredictability of outcomes of individual behavior, and the lack of clarity of behavioral requirements (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Rizzo, House, & Lirtzman, 1970). Coworkers provide information resources, and thus “reduce the tensions growing out of uncertainty and unpredictability in the actions of others” (Bales, 1950, p. 33).

High-quality or frequent-exchanges with coworkers can affect a focal employee's perceived *role conflict* (“the simultaneous occurrence of two (or more) sets of pressures such that compliance with one would make more difficult compliance with the other,” Kahn et al., 1964, p. 19). Coworkers might also shape their colleagues’ roles through offering lateral mentoring (Raabe & Beehr, 2003), providing cues about task prioritizing that can reduce role conflict.

Finally, individuals can experience *role overload*, or situations in which they feel that
excessive activities are expected of them given their abilities, time, and organizational
constraints (Rizzo et al., 1970). Coworkers are salutary in this situation too. Regardless of the
type of job, some tasks are central and others are peripheral or even ceremonial (Ashforth &
Mael, 1989). Coworkers can help to sort out such tasks, with the net result of reduced overload.
In addition to giving cues about what is important, coworkers can reduce their fellow employees’
feelings of role overload through emotional means (i.e., displaying empathy or providing a
sounding board of someone with whom to commiserate; Beehr, Jex, Stacy, & Murray, 2000).

Hypothesis 2a-c: Coworker support is negatively related to focal employees’ (a) role
ambiguity, (b) role conflict, and (c) role overload.

Coworker Support and Individual Work Attitudes

A long-standing prediction in research on lateral relationships is that coworkers can
influence employee opinions and attitudes through varied means, including providing task-
related help, information, or affective support (Caplan et al., 1975). We concentrate on widely
inclusive attitudes such as job satisfaction, job involvement, and organizational commitment, as
they are central to one’s work experience (Harrison, Newman, & Roth, 2006). Job satisfaction is
a pleasurable or positive emotional state resulting from the appraisal of one’s job or job
experiences (Locke, 1976). It should be positively connected to coworker support. For example,
focal employees are more satisfied with their jobs when there is a congenial social environment
created by others, or when that environment is enriched by behavioral assistance for getting tasks
completed (Beehr, 1986; Pollock, Whitbred, & Contractor, 2000).

Coworker support should also enhance job involvement, the state of psychological
identification with one’s work role (Lodahl & Kejner, 1965; Nugent & Abolafia, 2006).
Coworkers provide information on how to internalize versus externalize core elements of one's
job, even if it is stigmatized by others outside work (Ashforth & Kreiner, 1999). The fact that
coworkers exhibit behaviors such as staying late, picking up an extra shift, or verbalizing psychological states can lead to internalization by the focal employee (Kelman, 1961).

Organizational commitment is typically described as an emotional attachment to, or identification with, one's firm (rather than one's job; Meyer & Allen, 1984). Factors other than formal exchanges with the firm or its authority representatives (direct leaders) can influence individuals' commitment. With increased frequency, coworkers supply resources that are a part of the organizational experience: psychosocial support and sometimes even training and mentoring (Ensher et al., 2001). These activities are designed with the explicit purpose of increasing loyalty and deepening commitment to the organization.

Hypothesis 3a-c: Coworker support is positively related to focal employees’ (a) job satisfaction, (b) job involvement, and (c) organizational commitment.

Coworker Support and Individual Withdrawal

The contributions of coworkers to the social environment at work can also drive a focal employee's behavioral outcomes, including forms of withdrawal. Such behaviors can be arranged from withholding inputs (Kidwell & Bennett, 1993) and psychological detachment (such as turnover intention) to more noticeable forms of lateness or absenteeism, to eventual organizational turnover (Harrison, 2002). Effort reduction, the likelihood that an individual will give less than full inputs to a job-related task (shirking, loafing or free-riding: Kidwell & Bennett, 1993), can be affected by coworkers. For example, employees seek out information from similar others to determine required levels of effort relative to what those others are providing (Morrison, 1993). Withdrawing a step further from the job, employees can engage in absenteeism (lack of physical presence at a behavior setting when and where one is expected to be) because of similar others' behavior patterns (Mathieu & Kohler, 1990). That is, “predicting individual variation in voluntary absence behavior involves examining what individuals feel is
personally desirable and acceptable to their coworkers” (Nicholson & Johns, 1985, p. 403, italics ours). Likewise, positive resources from coworkers, especially in interdependent environments, can be a “rising motivational tide” that lifts all boats toward higher levels of job dedication, including attendance (reduced absenteeism; Harrison, 1995; Xie & Johns, 2000). Coworkers can motivate focal employees’ presence, given that they will be less likely to use absences as excuses from work if coworkers supply help and support (e.g., Iverson, Olekalns, & Erwin, 1998).

Coworkers can also influence the focal employees’ intention to quit (conceived as a willfulness to leave the organization) and their turnover (permanent separation from the firm), by reducing communication and emotional support (e.g., Cox, 1999), or by badmouthing the organization and quitting themselves (e.g., Krackhardt & Porter, 1986). In the embeddedness model of turnover, focal employees are connected in a relational network with coworkers, and the quality of these exchanges leads to less job search activity and reduced turnover (Mitchell, Holtom, Lee, Sablynski, & Erez, 2001). Lateral exchanges are also present in the unfolding model, in which decisions to quit are initiated by specific shocks (Lee & Mitchell, 1994).

*Hypothesis 4a-d: Coworker support has a negative relationship with focal employees’ (a) effort reduction, (b) absenteeism, (c) intention to quit, and (d) turnover.*

**Coworker Support and Individual Effectiveness**

In many ways, coworker support might influence elements of the “effectiveness space” (Harrison et al., 2006), including counterproductive work behaviors (CWBs), organizational citizenship behaviors (OCBs), and task performance. On one hand, counterproductive work behaviors are intentional actions viewed by the organization as contrary to its legitimate interests (Gruys & Sackett, 2003). They comprise a general category that encompasses deviant (Bennett & Robinson, 2000), anti-social (Robinson & O’Leary-Kelly, 1998), uncivil (Andersson & Pearson, 1999), and socially undermining (Duffy, Ganster, Shaw, Johnson, & Pagon, 2006)
actions. On the other hand, organizational citizenship behaviors (OCBs) consist of individual actions that are discretionary, not explicitly recognized by a firm's reward system, and that promote stable, efficient organization functioning (Organ, Podsakoff, & MacKenzie, 2006).

Behaviors in each of these categories can be distinguished as being directed at coworkers versus the organization, and they likely follow social exchange (Blau, 1964) and reciprocity (Gouldner, 1960) norms. Quid-pro-quo dominates weak-tie social relationships (which might describe connections with many coworkers), as observed in competition and cooperation experiments (Axelrod, 1984). Based on these exchange principles, focal employees will likely respond in kind to coworker support. As coworkers supply more helpful resources, we expect focal employees themselves to engage more in organizational citizenship behaviors (OCB-Is) and less often in counterproductive work behaviors (CWB-Is) that are interpersonally (-I) directed. Spillover explains the same kinds of positive (OCB) and negative (CWB) behaviors directed at the organization (OCB-O, CWB-O). Specifically, repeated reception of positive inputs from coworkers leads to reciprocation and the formation of climates encouraging focal employees to display more positive (e.g., helping; Organ et al., 2006) and less negative (e.g., incivility; Andersson & Pearson, 1999) interpersonal actions. When many engage in these behaviors over time, there will be a spillover effect for the organization as a whole.

Coworker support also promotes employee task performance. Making work tasks easier to execute by giving critical information about "knowing the ropes" processes (Kogler Hill, Bahniuk, & Dobos, 1989), directly helping employees advance towards their work goals (Ensher et al., 2001), and facilitating smooth social transactions with coworkers (Deckop, Cirka, & Andersson, 2003) can result in performance gains. Even when the motives for providing support are centered on the person at the receiving end (e.g., skill development), the net result of
coworker support is an improvement in the focal employee’s performance level.

\textit{Hypothesis 5a-e: Coworker support has a negative relationship with focal employees’ (a) CWB-I, (b) CWB-O, and a positive relationship with (c) OCB-I, (d) OCB-O, and (e) task performance.}

\textbf{Moderated and Indirect Effects: Processes Linking Coworker Influences to Individual Outcomes}

Thus far we have discussed the uniqueness of coworker (versus leader) contributions to employee outcomes, and we have provided arguments for the importance of coworkers in shaping colleagues’ role perceptions, attitudes, withdrawal, and effectiveness. Still, a vital process-related question remains: \textit{how do coworkers make the place?} In attempting to answer this question, we turned to finer-grained or more nuanced aspects of coworker effects. First, we explore whether coworkers direct effect their colleagues' performance, or instead they do so indirectly, through role perceptions and attitudes. Second, we propose and test several forms of differentiated (moderated) influences, based on valence of coworker influence, the content of support, the severity of antagonism, and the social intensity of a focal employees’ tasks.

\textit{Mediation through Role Perceptions and Work Attitudes}

How do coworkers contribute to their colleagues’ work effectiveness, especially their job performance? Two theory-based arguments can be made for indirect (fully mediated) versus direct (partially or unmediated) connections. One possibility is for coworker influences to primarily – perhaps exclusively – affect how their colleagues perceive and shape their work roles, and how they form, retain, and access work attitudes. These role perceptions and attitudes, in turn, carry forward to changes in performance (Kahn et al., 1964). Another possibility specifies coworkers lending a hand, almost literally. Coworker support and antagonism adds to (or subtracts from) individual performance itself, perhaps by affecting behavioral resources, or by contributing unique inputs that enhance or detract from individual productivity or quality.
Coworkers can help lighten the load of an individual's work output -- putting their shoulder to the proverbial wheel and extending assistance -- or make it heavier. To examine the two possibilities, we test the fit of mediated models of coworker influence, and we propose that coworkers’ influence on their colleagues’ performance is explained only in part by how they shape the role perceptions and work attitudes of these focal employees.

_Hypothesis 6a-b: Coworker (a) support and (b) antagonism have a unique association with focal employees’ performance beyond that of role perceptions and work attitudes._

**Moderation by the Valence of Coworker Influence**

In addition to the hypotheses above connecting coworker support to focal employee outcomes, we empirically track how coworker antagonism is related to and opposite in sign to the same criteria. Although some of the arguments for the relationship between coworker antagonism and individual outcomes run in counter directions to those for support (e.g., that antagonism should reduce a focal employee's engagement in OCB-I is based on negative reciprocity arguments), they are unlikely to be perfectly balanced endpoints of the same continuum. Whether they pertain to social stimuli (Skowronki & Carlston, 1989; Taylor, 1991), affect (Cacioppo, Gardner, & Berntson, 1999), or relationships at work (Labianca & Brass, 2006), positive and negative influences are neither completely redundant nor wholly symmetric in their effects. One valence can be more important for some consequences than others; when perceiving roles, forming attitudes, modulating inputs, and enacting behaviors, focal employees may have different motivations, depending on the valence of their coworkers’ influence.

That is, in any work organization, employees are exposed to both positive and negative stimuli from coworkers, and they engage in sense-making or attribution about the sources and causes of them (Green & Mitchell, 1979). Because it is likely to be seen as a background pattern of expected behavior, we assert that most forms of coworker support will be perceived as
generic, common, and widely spread through an organization. This kind of consensus (the extent to which a behavior pattern is perceived as similar across different people) leads to a broader, situational attribution for the behavior (Kelley, 1973). We anticipate that most coworkers routinely engage in support -- support is the norm and antagonism the exception -- which makes support more likely to be attributed to the organizational environment. And, if support attributions are directed, at least in part, toward the firm as a whole, this will further create positive attitudes about the organization (and one's position in it), as well as subsequent individual engagement in behaviors directed at sustaining it.

Hypothesis 7a-d: Coworker support has a stronger relationship than antagonism with work attitudes, including (a) job satisfaction and (b) organizational commitment, as well as with organizationally oriented outcomes, including (c) CWB-O, and (d) performance.

A different process might operate for coworkers' antagonistic behaviors, which are more likely to be perceived as low on the consensus dimension, or as uniquely associated with their distinct, personal source (Kelley, 1973). First, antagonism is likely a low base-rate phenomenon in most organizations; when it occurs it will "stick out" and be noticed. Second, negative events loom larger because human cognitive systems are especially sensitized to perceive and respond to threats (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Skowronski & Carlston, 1989). Such distinctiveness can help with attributing such behaviors to isolated individuals, and focal employees are more likely to respond dyadically. This is consistent not only with reciprocation norms (e.g., Gouldner, 1960), but also with target similarity (Lavelle, Rupp, & Brockner, 2007). When antagonized, employees will thus engage in higher levels of interpersonal deviance (CWB-I) or lower levels of assistance or extra-role behavior targeted at specific others (OCB-I).

Hypothesis 8a-b: Coworker antagonism has a stronger relationship than coworker support with interpersonally oriented outcomes, including (a) CWB-I, and (b) OCB-I.

Moderation by Content of Support, Severity of Antagonism, and Intensity of Task Context
We continue to expound on the idea that coworker influences have differential effects, here as a function of support content (nature of what is provided) and antagonism severity. Researchers in domains as diverse as stress (Schaefer, Coyne, & Lazarus, 1981), close relationships (Cutrona & Russell, 1987), social exchange (Cropanzano & Mitchell, 2005) and group member interactions (Hackman, 1992) have several classification schemes for other forms of content. Cutrona and Russell's (1987) examination of many of the bases of these and other typologies (e.g., Kahn, 1979; Cohen & Wills, 1985) let to a distinction between interpersonal resources that provide expressive or affective support (through emotional routes; Cobb, 1979), and those offering task-related or instrumental support (through information or behavioral assistance; Schaefer et al., 1981). Manifestations of affective support include displays of positive emotion, including friendliness (Morgeson & Humphrey, 2006) and solidarity (Koster & Sanders, 2006). Instrumental support ranges from task-directed helping (Caplan et al., 1975), to coworker mentoring (Ensher et al., 2001) and horizontal communication (Kramer, 1996). Each of these forms can be tied most strongly to be a particular subset of employee outcomes.

Affective support starts with discrete events, such as complimentary feedback or empathizing with coworkers (Weiss & Cropanzano, 1996). Through repeated interactions, such affective support generates expressive relationships, and the formation of stable attitudes such as satisfaction, involvement, and a desire to maintain organizational membership. Affective content emanating from coworkers should have a stronger influence than instrumental content on focal employees’ work attitudes, for several reasons. First, this content of support and attitudes share a common affective substrate (affect is a major determinant of attitude; Thoresen, Kaplan, Barsky, Warren, & de Charmont, 2003). In addition, affective support (originating from coworkers) has a broadening impact on employees’ perceptions and actions and a positive influence on social
relationships in general, beyond a particular dyad (see Fredrickson, 1998 for a review of the affect-based "broaden-and-build" model). Although affective support comes from a particular coworker, affect broadens the focal employee’s action repertoire, sparking reciprocation to others (more positive affect, more acts of kindness). In time, this generates a reinforcing cycle, translated further into satisfaction, involvement with, and commitment to the organization.

Hypothesis 9a-c: Coworker support with affective content has a stronger relationship with focal employee work attitudes, (a) job satisfaction, (b) job involvement, and (c) organizational commitment, than coworker support based on instrumental content.

As opposed to affective support, information and behavioral assistance from a coworker (the latter is akin to “service” in Foa & Foa's 1976 typology) – instrumental support – carries an explicit or implicit intent to aid in task completion. Helping someone who is temporarily overburdened with work, or providing tacit knowledge about how to more effectively carry out an assignment, is aimed toward and leads to an improvement in focal employee performance (Organ et al., 2006). In addition, the instrumental support of "lending a hand" is easier to mark and hold in a mental account than is affective support. It cues an interpersonal pattern of turn-taking (Kelley & Thibaut, 1978) as well as the universal norm of reciprocity (Gouldner, 1960), whereby focal employees feel compelled to respond with similar support back to their coworker (OCB-I).

Hypothesis 10a-b: Coworker support with instrumental content has a stronger relationship with work effectiveness, including (a) organizational citizenship behaviors directed at other individuals (OCB-I), and (b) task performance, than coworker support with affective content.

Coworker antagonism can also vary based on severity: the harshness of the action emanating from one's coworkers. Weaker forms include being incivil (e.g., excluding a colleague from social conversations; Blau & Andersson, 2005) or engaging in social undermining (Duffy et al., 2002). Stronger, sharper forms include harassment, interpersonal abuse, and physical aggression (Bartlett, 2001; Bruk-Lee & Spector, 2006). That is, high
than low severity antagonistic actions are characterized by a greater outlay of sustained effort (rather than merely passive neglect), and are more pronounced in their deviation from norms of appropriateness. Both features make them more salient to focal employees (Baumeister et al., 2001). Antagonistic actions with high level of severity should be easily seen, remembered, and used when evaluating the social environment and possibly when providing "tit for tat" reciprocation to a coworker. Less severe forms will more likely fade into the cognitive background of the receiving employee (Green & Mitchell, 1979) and should therefore have a lower impact on attitudes such as job satisfaction, as well as on retaliatory behaviors (CWB-I's).

Hypothesis 11: High severity coworker antagonism has a stronger relationship with focal employee outcomes than lower severity antagonism.

Moving from characteristics of the coworker influence itself, to the environment in which it is delivered, we focus on the tasks performed by the focal employee and his or her coworkers. Consistent with theories of work adjustment and vocational choice (e.g., Dawis & Lofquist, 1984; Holland, 1959) jobs and occupational clusters differ in what we refer to as social intensity: the extent to which employees are required to account for and incorporate interpersonal information from their environment into the processes needed to successfully carry out their jobs (Morgeson & Humphrey, 2006). These social intensity requirements can accentuate or attenuate the direct relationships described in our main model. Unlike in primarily technical positions (e.g., programmers), employees in jobs with more intense social requirements (e.g., nurses, counselors, salespeople) are not only in permanent contact with those situated at the receiving end of interpersonal services (patients, clients, customers), they can also rely to a greater extent on resources from their coworkers to clarify various social aspects of the job or help with task execution (de Jong & de Ruyter, 2004). That is, their social environment has a richer set of cues and a more prominent set of demands, and the employees themselves are more strongly
embedded within it. Further, their continued work in the organization and their satisfaction with the job should depend more on coworkers than in jobs where such social demands are lower.

**Hypothesis 12:** Coworker support in jobs with high social intensity has a stronger relationship with individual outcomes than in jobs with low social intensity.

**Method**

**Identification of Studies**

To test our hypotheses, we identified as many relevant published and unpublished studies as possible. To do so, we searched databases in applied psychology and the social and organizational sciences. We used combinations of keywords such as *coworker, lateral,* and *dyadic,* along with *work, team, or task, or job,* to restrict our search to the domain of work-related studies. These keywords were combined with words and phrases (and their synonyms) indicative of our effects of interest. For example, labels for independent variables that were subsumed under the scope of our broad construct, coworker support (of both instrumental and affective types) included lateral exchanges (Sherony & Green, 2002), coworker mentoring (Ensher et al., 2001), belongingness (Roe, Zinovieva, Dienes, & Ten Horn, 2000), friendliness (Morgeson & Humphrey, 2006) and other terms. Likewise, labels for variables subsumed under coworker antagonism included behaviors such as incivility (Andersson & Pearson, 1999), social undermining (Duffy et al., 2006), interpersonal abuse (Bruk-Lee & Spector, 2006), and their variants. For our dependent constructs, labels were more straightforward and consensual in the literature. For instance, we used *role ambiguity (role clarity), role conflict,* and *role overload* (and related terms such as *work load, job demands,* and *time pressure*) for role perceptions, *job satisfaction,* *organizational commitment* and *job involvement* for work-related attitudes, and so on. Phrases were combined using Boolean operators.

We performed our searches in the following databases: *ABI/Inform, Academic Ideal,*
Current Contents, Dissertation Abstracts, EBSCO, ERIC, Science Direct, ProQuest, PsycLit, PsycInfo, Sociological Abstracts, JSTOR, Google Scholar, and Web of Science. We also searched for possible unpublished and in-press studies by sending e-mail solicitations to members of the Academy of Management listservs (Organizational Behavior, Human Resource, and Research Methods divisions), as well as directly contacting authors in the area of coworker research. We also did a manual search of the past three years of research in the Journal of Applied Psychology, Journal of Occupational Health Psychology, Group and Organization Management, Personnel Psychology, and Work and Stress, which did not add new studies to our meta-analytic database. This strategy generated 161 independent samples and 77,954 employees, which is comparable in size and scope to recent summaries of the leadership constructs (e.g., consideration: 163 samples, 20,963 employees, and initiating structure: 159 samples, 20,431 employees; Judge, Piccolo, & Ilies, 2004).

Criteria for Inclusion and Exclusion

Original studies had to meet specific parameters to be included in the meta-analytic database. First, we focused on samples of adults, working in their jobs in ongoing organizations. That is, we only included studies that took place under “field” conditions or natural contexts. Second, we included only studies whereby effects dealt with, at least in part, identifiable sets of coworkers rather than the effects that could be conflated with supervisor or direct leader, or with the organization and its top management. For example, many studies exist for mentor influences on individual and organizational outcomes, but we used only those studies that isolated coworker mentoring. Finally, we bounded our studies to include those in which the focal employee (ego) described components of their lateral social context, exchanges, or support of resources by coworkers (alters). We did not examine the reverse, how coworkers (alters) were perceived to
respond to the focal employee's (ego's) own behavior.

_Coding Scheme and Study Characteristics_

Using procedures recommended by Lipsey and Wilson (2001), we developed a system for identifying the substance of coworker influence, and for classifying it based on valence (positive: support versus negative: antagonism), content of support (affective and instrumental), and severity of antagonism (high and low). Prototypical statements for positive and negative _valence_ of coworker influence were “helps with a difficult task” and “gives me incorrect or misleading information,” respectively. Moving to the _content_ of coworker support, “helps me with getting the job done” and "gives me work-related information” illustrate _instrumental support_; “cheers me up” and “is understanding or sympathetic” are representative of _affective support_. Further, antagonistic behaviors were also coded from _low severity_ (including incivility and social undermining, “delayed information to slow you down“) to _high severity_ (i.e., conflict, aggression; “got into arguments with you“).

After identifying studies with unique occupations (N = 50), consistent with prior work (e.g., Dierdorff & Morgeson, 2007), we used the U.S. Department of Labor’s Occupational Information Network (O*NET) to determine how to systematically separate our studies along the _social intensity_ dimension. The O*NET database offers extensive job or position information, based on a theoretical structure (Mumford & Peterson, 1999; Peterson et al., 2001). We created an index capturing low and high social intensity, based on O*NET variables offering socially-related information from various perspectives, including seven available variables in the O*NET database for “helping and providing service,” “relationship-mean extent,” “cooperation,” “concern for others,” “social orientation,” “social perceptiveness,” and “establishing and maintaining interpersonal relationships.” A principle axes factor analysis strongly supported our
a-priori, single-factor structure, with loadings higher than .72 and 74.42 percent explained variance by the social intensity factor).

For individual outcome variables that were not isomorphic with our corresponding labels, or for those that were more ambiguous (e.g., variations of citizenship behaviors), we based our coding decisions on prior meta-analytic, theoretical, and empirical investigations. For example, meta-analyses (e.g., LePine, Erez, & Johnson, 2002) and other studies (Coleman & Borman, 2000; Organ et al., 2006; Podsakoff, MacKenzie, Paine, & Bacharach, 2000) describe organizational citizenship behaviors directed at other individuals (OCB-Is) as altruism, courtesy, and helping. Conversely, organizational citizenship behaviors directed at the organization (OCB-Os) are presented as consisting of consciousness, civic virtue, and sportsmanship. Finally, we further coded original studies for the source of evidence about the focal employees’ behaviors (e.g., self-reported or supervisor-reported).

Meta-Analytic Techniques

We calculated effect sizes using the methods described by Hunter and Schmidt (2004) because it allows for adjustments in observed effect sizes and correction for study artifacts such as sampling error and unreliability. Specifically, we performed reliability corrections for both our independent and the dependent variables. In addition to correcting for these artifacts within each study (Hunter and Schmidt, 2004), when original studies did not report estimated reliabilities, we used an imputation procedure based on the average reliability estimated from the other studies that examined the same relationship (e.g., Balkundi & Harrison, 2006).

In addition, we had to ensure that the effect sizes included in our meta-analysis were independent. Hence, when the original studies provided multiple estimates of the correlation within a single sample between a predictor, X, and a criterion, Y, such as when there were
several (same-source) measures of Y, we combined them into one correlation by using the formula for composites (Hunter & Schmidt, 2004), or we averaged them if the correlations between dimensions were not reported in the original study. This kept samples from contributing more than one effect size to cumulative meta-analytic estimates (i.e., no double-counting).

Consistent with Hunter and Schmidt (2004), to test specific moderators we created subsets of correlations based on our a-priori moderator hypotheses. That is, we created subsets of effect sizes (e.g., coworker support versus antagonism, low versus high social intensity) and we inferred moderation based on between-subset differences in mean estimated effect sizes and their confidence intervals. Mediation tests were based on meta-analytic correlation matrices created using data from our meta-analytic database (for Hypothesis 1), and supplemented with effect sizes from other meta-analyses (for Hypothesis 6; Viswesvaran & Ones, 1995).

Results

We tested our formal hypotheses using the meta-analytic methods described above. In addition to presenting main effect results for coworker support in Tables 3-6 in the spirit of comprehensiveness that is endemic to meta-analysis, we also present results for antagonism alongside them (although they are not present explicitly in Hypotheses 2-5). As we mention below, for some of these and other tests, we were restricted in the scope of our empirical validation to the effect sizes for which there were enough primary studies to provide data.

Comparative Coworker and Leader Influences

To establish the importance of coworker effects, we tested whether lateral and vertical influence might be interchangeable parts in the social environment at work, in terms of having the no unique simultaneous coworker and leader statistical effects. Of the 161 primary investigations in our database, 72 contained included both coworker- and leader-related
information in the same study. These data allowed a direct within-sample comparison of the simultaneous effect of coworker support and leader support (correlated $\rho = .404$ across 64 subsamples), as well as coworker antagonism and leader antagonism (correlated $\rho = .363$, within 8 studies). Consistent with current guidelines (e.g., Visweswaran & Ones, 1995) we used these simultaneous effect sizes to create three-variable correlation matrices including our two predictors (e.g., coworker and leader support) and each separate criterion for which we had available data. We were limited to effect sizes reported in the primary studies, which allowed the creation of 14 such correlation matrices. These included most of the outcomes for support (except CWBs and OCB-I), but only two outcomes for antagonism (role ambiguity and role conflict, see Table 1). The estimation was based on the harmonic mean of the sample sizes from the original studies. Table 1 provides standardized coefficients and sample sizes (as well as $k$s and harmonic means) for our comparisons of coworker and leader effects.

The results indicate that coworkers matter uniquely -- when associations of leader support with outcome variables are partialled or accounted for and considered simultaneously. Hypothesis 1 was supported. In fact, in addition to many outcome domains where coworker predictors are associated with the outcomes as strongly as the direct leader ones, coworker support was more predictive than leader support for job involvement ($\rho = .33$ and $\rho = .06$ for coworker support and leader support, respectively), and could play a crucial role for most of the withdrawal-related criteria (e.g., $\rho = -.22$ versus $\rho = -.04$ for effort reduction, and $\rho = -.08$ versus $\rho = -.01$ for absenteeism, coworker and leader support, respectively).

Another way to examine our first hypothesis is to compare unadjusted correlations. The comparison appears in Table 2, where we present our 30 effect sizes for coworker support (15) and coworker antagonism (15) together with available effect sizes from meta-analyses of
leadership constructs (median values are used when several published meta-analytic effect sizes exist). Overall, our estimated associations of leader influences with work outcomes were consistent in size and direction with prior meta-analyses. Given that our investigation is more comprehensive on the criterion side than prior meta-analyses of leader effects, the comparison is limited to the outcomes available in current meta-analytic work (i.e., there is no comparative information for role overload, absenteeism, and both types of CWBs). The values in Table 2 make a case for greater attention to lateral relationships in organizational research. Cumulative effect sizes for coworker influences tend to be as large as, and in many instances larger than, parallel effect sizes for leader influences.

------- Insert Tables 1 and 2 about here -----

*Coworker Influences and Individual Role Perceptions*

Having thus far established that coworkers clearly do help make the place, even accounting for leader influences, we turn to separate individual outcomes. In Hypotheses 2a, 2b, and 2c, we proposed negative relationships between coworker support and role ambiguity, role conflict, and role overload, respectively. Coworker support is indeed associated with reduced levels of these (detrimental) aspects of role perceptions. The average corrected correlations were \( \bar{\rho} = -.416 \) (\( k = 44, N = 30,068 \)) for role ambiguity, \( \bar{\rho} = -.273 \) (\( k = 18, N = 13,523 \)) for role conflict, and \( \bar{\rho} = -.224 \) (\( k = 27, N = 9,013 \)) for role overload (see Table 3). In addition to calculating effect sizes, we conducted file-drawer analyses (Rosenthal, 1979) to check whether our findings are robust to potential unpublished studies. Specifically, failsafe numbers provide an indication on how many additional samples with null effects would be necessary to cast doubt on the robustness of our results. The analysis indicates that our findings are dependable, with failsafe numbers of studies at \( k = 370, 97, \) and 119 for each respective role perception.
Coworker Influences and Individual Work Attitudes

In our second group of hypotheses, we proposed that coworker support positively predicts job satisfaction (Hypothesis 3a), job involvement (Hypothesis 3b), and organizational commitment (Hypothesis 3c). As shown in Table 4, a positive connection between coworker support and job satisfaction ($\rho = .404$) is indicated across $k = 100$ studies based on sample of $N = 31,966$. The pattern is maintained for job involvement ($\rho = .353$, $k = 35$, $N = 11,182$) and organizational commitment ($\rho = .317$, $k = 56$, $N = 19,334$). All of these results are consistent with our propositions, and are resistant to unpublished studies with potential null effect sizes (fail-safe $k = 800, 245, \text{ and } 381$, for each attitude, respectively).

Coworker Influences and Individual Withdrawal

Our meta-analytic tests also suggest that coworker support can play a part in various forms of distancing oneself from one's job (Hypotheses 4a-d), with results reported in Table 5. Coworker support is associated with less effort reduction (i.e., more effort), $\rho = -.227$ ($k = 8$, $N = 2,217$), and fewer absences from work, $\rho = -.083$ ($k = 26$, $N = 7,601$). Similarly, there is a negative connection between coworker support and a focal employee's intention to quit: $\rho = -.265$ ($k = 43$, $N = 15,604$), as well as actual quitting: $\rho = -.168$ ($k = 5$, $N = 1,442$). Although the pattern of relationships is consistent with our hypotheses, the effect sizes are much smaller – especially for absenteeism – than for the perceptual and attitudinal variables considered above. Note that both absenteeism and turnover are taken from different sources of data than the coworker support measures, and their corresponding effects sizes are therefore not affected by potential common method variance. These hypotheses would lose empirical backing if $k = 37, 42, 232, \text{ and } 17$ null findings, respectively for each criterion, were added to the cumulation.

Coworker Influences and Individual Effectiveness
We also connected coworker support with various aspects of focal employee effectiveness, defining the latter construct somewhat broadly (although not as broadly as others, see Harrison et al., 2006). Results are in Table 6. Evidence affirms the effectiveness-related predictions in Hypotheses 5a-e. Coworker support is linked to both kinds of counterproductive work behaviors: CWB-I, $\bar{\rho} = -0.071$ ($k = 1, N = 286$), and CWB-O, $\bar{\rho} = -0.041$ ($k = 2, N = 629$). Results also indicate positive contributions of support to OCB-I ($\bar{\rho} = 0.194$, $k = 11, N = 2,514$), along with OCB-O ($\bar{\rho} = 0.115$, $k = 8, N = 1,550$) and task performance ($\bar{\rho} = 0.235$, $k = 52, N = 13,363$). Fail-safe $k$'s for some of these effects – CWB-I (1), CWB-O (2), OCB-I (42), and OCB-O (19) – are not as large as in other areas of our meta-analysis, reflecting substantially fewer studies and smaller sample sizes for some of the effectiveness outcomes. On the other hand, the robustness of findings for task performance (fail-safe $k = 206$) is much stronger.

Because some of the original studies collected data from a mix of self reports and supervisor reports, it was possible to test whether our predicted relationships were robust across different data sources. Where comparisons were possible (see Table 6), effect sizes remained in the same direction across different raters of OCB dimensions and performance (for coworker support, given that the number of studies was too small to compare across sources for coworker antagonism). There was a predictable drop in magnitude, from $\bar{\rho} = 0.242$ to $\bar{\rho} = 0.207$ and from $\bar{\rho} = 0.194$ to $\bar{\rho} = 0.158$ in comparing same-source with cross-source correlations of coworker support and task performance and OCB-I, respectively. Yet, even when the independent and dependent variable came from different observers, there was a reliable connection. There were no same-source effect sizes for OCB-O, so the support of Hypothesis 5d is not inflated by potential common method variance.

------- Insert Tables 3 - 6 about here -------
Indirect (Mediated) versus Direct Effects on Performance

We used meta-analytic structural equation modeling (Visweswaran & Ones, 1995) to test that effects of coworker support and coworker antagonism (Hypotheses 6a-b) on focal employee performance are partially rather than fully mediated by role perceptions and work attitudes. Consistent with prior investigations using similar techniques (e.g., Colquitt, LePine, & Noe, 2000; Gajendran & Harrison, 2007), we restricted our analyses to models for which (a) effects existed in our meta-analytic database, and (b) we were able to fill missing cells in the meta-analytic correlation table with effect sizes from other cumulative research. Specifically, we used other meta-analyses for effect sizes (i.e., role ambiguity and role conflict to performance: Jackson & Schuler, 1985; job satisfaction to performance: Judge, Thoresen, Bono, & Patton, 2001; and organizational commitment to performance: Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). We dealt with unequal sample sizes across meta-analytic cells by calculating and using the harmonic mean, and we relied on maximum likelihood estimation methods because they allow $\Delta \chi^2$ comparisons of fully- and partially-mediated models.

As a result of these decisions and the constraints in the original effect sizes, we tested role ambiguity, role conflict, job satisfaction, and organizational commitment as potential mediators of how coworker influences are related to their colleagues’ individual performance. Coworker support had a unique effect on individual performance, even after allowing for possible mediation of role ambiguity ($\Delta \chi^2 = 797.69, \beta = .22, p < .001$; all reported differences are on one degree of freedom, and all beta coefficients represent standardized values), role conflict ($\Delta \chi^2 = 676.91, \beta = .23, p < .001$), job satisfaction ($\Delta \chi^2 = 291.67, \beta = .13, p < .001$), and organizational commitment ($\Delta \chi^2 = 638.32, \beta = .21, p < .001$). Because coworkers had a significant path through role perceptions and attitudes in these models, it has both indirect and
Coworker antagonism results are based on far fewer studies, but they are nearly as consistent in demonstrating unique effects. Specifically, antagonism had three of four unique (negative) effects on performance, even though mediators were present in the model: role ambiguity ($\Delta \chi^2 = 5.29, \beta = -.08, p < .05$), role conflict ($\Delta \chi^2 = 7.00, \beta = -.10, p < .05$), job satisfaction ($\Delta \chi^2 = .48, \beta = -.02, \text{ns}$), and organizational commitment ($\Delta \chi^2 = 5.18, \beta = -.08, p < .05$). These patterns of evidence are consistent with the predictions of direct coworker contributions to individual performance in Hypotheses 6a and 6b. It is also important to note that common method variance is of a lesser concern in these empirical tests, given that performance data in many of the original studies were collected from a different source than the coworker influence predictors and the individual perception and attitude mediators. Each predictor and mediator would have been more overlapping, and hence, less likely to show unique effects.

**Differential (Moderated) Coworker Influences**

*Positive versus negative valence.* We used attribution-based arguments to contend that the effects of coworker resources would be moderated by their valence. Positive coworker influences (support) were hypothesized to have a stronger relationship than negative coworker influences (antagonism) with more organizationally directed attitudes, including job satisfaction (Hypothesis 7a) and organizational commitment (Hypothesis 7b). In accord with Hypotheses 7a and 7b, Table 4 shows that links from coworker support to these work attitudes ($\bar{\rho} = .404$ for job satisfaction and $\bar{\rho} = .317$ for organizational commitment) were stronger when compared in absolute terms to the parallel connections for coworker antagonism ($\bar{\rho} = -.298$ and $\bar{\rho} = -.250$).

Similarly, we proposed that coworker support has a stronger relationship than antagonism with organizationally directed behaviors, including CWB-O (Hypothesis 7c), and task
performance (Hypothesis 7d). Average corrected correlations were larger for task performance when it was predicted by coworker support ($\bar{\rho} = .235$) than by coworker antagonism ($\bar{\rho} = -.111$). However, the pattern was reversed for CWB-O, which was predicted better by antagonism ($\bar{\rho} = .349$) than by support ($\bar{\rho} = -.041$; see Tables 6 and 7), supporting only Hypothesis 7d. There were no data available to test other theoretically-justifiable outcomes (e.g., job involvement, citizenship behaviors directed at the organization).

We forwarded arguments that the undesirable behaviors of antagonism would be more influential than the desirable resources of coworker support when the outcomes deal with interpersonal behaviors (CWB-I and OCB-I, Hypothesis 8a and Hypothesis 8b). The meta-analytic data lend credence to this idea. The average corrected correlations were larger for antagonism predicting CBW-I ($\bar{\rho} = .254$) and OCB-I ($\bar{\rho} = -.238$) than support predicting CBW-I ($\bar{\rho} = -.071$) and OCB-I ($\bar{\rho} = .194$; Table 6). Overall, the findings across dozens of studies show that valence of coworker support differentially predicts individual work attitudes and behaviors in a theoretically justified manner.

Affective versus instrumental content. We proposed that affective coworker resources would have a stronger link with work attitudes, including job satisfaction (Hypothesis 9a), job involvement (Hypothesis 9b), and organizational commitment (Hypothesis 9c) than would instrumental resources. In contrast, instrumental coworker support was predicted to have a stronger impact than affective support on outcomes such as OCB-I (Hypothesis 10a) and task performance (Hypothesis 10b; although predictions were theoretically justifiable, the dataset did not allow parallel tests for job involvement and OCB-O). Our predictions were strongly borne out in the meta-analytic results (see Table 4). Correlations of affective versus instrumental support were $\bar{\rho} = .402$ vs. $280$ for job satisfaction, $\bar{\rho} = .317$ vs. $088$ for job involvement, and $\bar{\rho}$
= .409 vs. .242 for organizational commitment. Similar results are presented in Table 6 for the reverse order: instrumental versus affective coworker resources predicting elements of effectiveness. We observed stronger links of instrumental support with OCB-I ($\rho = .275$) and task performance ($\rho = .369$), than of affective support ($\rho$'s = .174 and .117, respectively). The content of coworker support matters for some outcomes more than others, in a predictable way.

Severity of coworker antagonism. In Hypothesis 11, we proposed that more severe forms of antagonism have a stronger impact on focal employee outcomes. The data available allowed for a test of this prediction only for (a) job satisfaction and (b) individual-directed counterproductive behaviors (CWB-I). Table 4 shows that job satisfaction is indeed more strongly linked to high severity ($\rho = -.376$) than low-severity ($\rho = -.193$) antagonism. The pattern is maintained in Table 6 for counterproductive work behaviors, which are associated more with higher ($\rho = .344$) as compared to lower ($\rho = .172$) levels of antagonism severity.

Social intensity of the task environment. Finally, we conducted a meta-analytic comparison for Hypothesis 12, that high social intensity accentuates the relationship between coworker support and individual outcomes. Available data allowed moderator tests for role ambiguity, role conflict, job satisfaction, intent to quit, and performance). Based on a sample of 50 studies, we found (see Table 7) that coworker support is a stronger contributor to role ambiguity, role conflict and intent to quit under high ($\rho = -.382$, $\rho = -.301$, and $\rho = -.250$) versus low social intensity conditions ($\rho = -.289$, $\rho = -.163$, and $\rho = -.131$). The predicted pattern was also evidenced for job satisfaction and task performance, respectively, at high ($\rho = .422$, $\rho = .202$) versus low ($\rho = .253$, $\rho = .153$) levels of social intensity.

Discussion
Do coworkers "make the place" (Schneider, 1987)? In what ways? Our main objectives were to develop an integrative framework of coworker influences, test its components through meta-analysis, and in doing so, provide evidence of the uniqueness and import of coworkers’ influences in organizations. Clarifying these questions and answers can change -- and potentially challenge -- what we currently know about components of the workplace social environment.

First and foremost, our framework can improve theory development and design of impending empirical studies. For example, it suggests simultaneous relationships, and therefore, future joint examination between positive (support) and negative (antagonism) coworker predictors and outcomes. This more-encompassing conceptualization of the predictor space can bridge current research focusing exclusively on the coworkers’ positive or negative actions (e.g., Dutton & Dukerich, 2006; Felps, Mitchell, & Byington, 2006). Second, increased theoretical specification on how coworkers matter is provided by clarifying components of our framework. The ways that coworkers (e.g., content of coworker support, severity of coworker antagonism) or the task environment (i.e., social intensity) act to highlight or differentiate coworker effects is novel and results from the advantages of cumulating evidence from many studies.

Third, and in a finding that is new to the literature, the empirical evidence integrated into the framework shows that coworker influences predict perceptual, attitudinal, and behavior outcomes of their colleagues even when the influence of the direct leaders (on the same focal colleagues) is accounted for. This pattern of evidence finding can inform the design of new studies on the interplay of coworker and leaders potential relationships with the outcomes. Below, we provide more details on the meta-analytic findings and discuss how they speak to theories of lateral relationships at work.

Implications for Coworker Theories
Direct links. As we hypothesized and as is suggested by converging theories (e.g., Caplan et al., 1975; Katz & Kahn, 1978), coworker support is related to focal employees’ role perceptions. One way that coworkers make the place is to serve as a potentially rich source of help and information, which is associated with a reduction in their colleagues’ role ambiguity, conflict, and overload. Coworker influences are likewise strongly linked to higher satisfaction and involvement in one's job, and deeper commitment to one's organization. Such results are consistent with theoretical arguments that coworkers are an important, yet neglected, source of commitment (Reichers, 1985), and with interventions aimed at improving attitudes through actions originating laterally (e.g., mentoring from coworkers; Raabe & Beehr, 2003).

For withdrawal outcomes, coworker influences can be cast as having both strong and weak associations. Effort reduction and turnover intentions, both self-reported in original studies, would seem to be tightly connected to coworker influences. Absenteeism, usually taken from another source, is only loosely so. Actual turnover also comes from a separate source of data, but still has a more substantial connection with coworker influences. Thus, coworkers can be a potent instigator or mitigator of withdrawal. As tested in some of the primary studies, this could occur through a variety of mechanisms (e.g., working at a faster or slower pace, providing or withholding their own engagement in tasks, being present or absent, and choosing to stay or quit the organization themselves; Cox, 1999; Krackhardt & Porter, 1986). For effectiveness outcomes, coworker support is positively related to both performance and organizational citizenship behaviors, and the pattern is maintained for the relationship between coworker antagonism and counterproductive work behaviors (with fairly robust results across data sources). Positive and negative reciprocation (Gouldner, 1960) and turn-taking (Kelley & Thibaut, 1978) are explanations consistent with these findings.
Intervening processes: mediators and moderators. A particularly strong pattern of findings emerges when we examine whether the relationship between coworkers’ positive and negative influences and their colleagues’ performance is broad-based and direct versus narrow and indirect (fully mediated). Role perceptions (i.e., ambiguity, conflict) and work attitudes (job satisfaction, commitment) explain only part of the link between coworker influences and their colleagues’ performance. That is, the data are consistent with the idea that coworkers affect behavioral outcomes directly. The exact mechanisms underlying these direct relationships remain open to and now command further exploration.

Complex yet systematic patterns are also present when we turn to an examination of moderators. In terms of the valence of coworker influences, general attitudes towards one's work and the organization appear to more strongly reflect coworker support than coworker antagonism. Our reasoning for this prediction was that positive forms of coworker influences are expected. As the perceptual backdrop or base fabric of ties that make up the organization, such positive associations are more likely to be attributed to the overall social environment (Green & Mitchell, 1979). On the other hand, when unexpectedly negative behaviors are delivered, or when ties are severed by coworkers, focal employees might make more personal attributions, directing their response to retaliatory or reciprocal processes that are more narrowly targeted at specific coworkers in the social environment. We believe this examination and finding of response asymmetry is also unique in the literature, and it further illustrates one of the benefits of a meta-analytic approach. Such asymmetry does not appear in theoretical and empirical investigations of the effect of the leader or the organization on focal employees, although it is increasingly present in intra-personal domains, in theories of affect and attitude development (Cacioppo et al., 1999), and of self-regulation (Skowronski & Carlston, 1989).
Further, differences in the valence of coworker influences indicate that antagonism overshadows support in terms of being associated with employee behaviors that have an interpersonal target. Specifically, antagonism is more strongly linked to a passive response of reduced citizenship and an active response of heightened counterproductive behaviors directed (back) at coworkers (Duffy et al., 2006). Both of these results take on the veneer of revenge or reprisal, and such results would be predicted by tit-for-tat (Axelrod, 1984) relational strategies.

Moderators based on content, severity, and social intensity show, from a different angle, the benefits evidence obtained from cumulating a large number of studies. When coworker support is separated based on its content, its instrumental side appears to be aimed at, and is a stronger predictor of focal employee effectiveness than is affective support. It also appears to be returned more often in kind than affective support -- manifesting itself as a higher frequency of organizational citizenship behaviors directed at other individuals (OCB-Is). Such results are predicted by the need to maintain balance in interdependent relationships (Kelley & Thibaut, 1978) and by favor-doing explanations (Flynn, 2006). Alternatively, focal employee attitudes have a stronger relationship with affective rather than instrumental support, consistent with the developing of social resources aspect of the broaden-and-build model (e.g., Fredrickson, 1998).

In addition to connecting coworker antagonism to individual outcomes, we were also able to differentiate how these outcomes are modified based on the severity of antagonism. Despite a smaller number of antagonism studies, which also speaks to a greater need in future coworker research, our cumulative results support severity as a moderator. Although both weak and strong forms of antagonism are associated with more detrimental levels of job satisfaction and counterproductive work behaviors, stronger versions (e.g., interpersonal conflict; Bruk-Lee & Spector, 2006) accentuate the outcomes more than weaker versions (e.g., neglect, exclusion;
Duffy et al., 2002). These patterns, which are not captured in primary studies because they tend to examine each level in isolation, point to the need to integrate theories of negative coworker influences by using severity as a kind of "accelerant" of damaging social effects (Sutton, 2007).

Turning from the people who make the place to aspects of the place itself, we theorized that coworkers would be more influential in jobs and occupations with high intensity social requirements. Indeed, our results show that, because of specific interpersonal components of particular tasks and positions (e.g., need to cooperate), coworkers matter more for their colleagues’ roles, attitudes, withdrawal, and effectiveness in these settings than for jobs with reduced social intensity. This result, and the others presented above, have implications for the next decades of investigations on coworker influences, discussed next.

Implications for Research Paradigms

Extending and refining lateral relationships research. Adding to studies that have cumulated effects of opportunities to receive help from coworkers (e.g., Humphrey, Nahrgang, & Morgeson, 2007) and to other meta-analytic work focusing on health outcomes (e.g., burnout; Halbesleben, 2006), we begin to formalize an agenda and direction for bringing together heretofore separate streams of research on leader and coworker influences. Coworker influences are linked uniquely to each (perceptual, attitudinal, and behavioral) category of work outcomes examined in the present study, and they can be a primary contributor to focal employees’ role perceptions, turnover, and performance. However, further investigation using more complex models is necessary to capture how coworker support or antagonism matters.

In general, the studies we have summarized relate either positive or negative coworker influences to either prosocial (Deckop et al., 2003) or counterproductive outcomes (Robinson & O’Leary-Kelly, 1998). Yet, employees are likely to encounter both positive and negative
behaviors originating from coworkers; broader models that include simultaneous -- additive, synergistic, or neutralizing -- effects of coworker support and antagonism can inform theory and related interventions. Further investigations would benefit from using the integrative framework provided and examine the entire range of coworker influences and individual outcomes. Our asymmetric results suggest unique correlations of these two valences of coworker influences for attitudes versus behaviors, for instance. It is yet to be determined whether the pattern holds for other work outcomes, such as role perceptions and withdrawal. More refined models can also examine whether these asymmetries based on valence are attenuated or enhanced as a function of the behavioral content (e.g., affective vs. instrumental), especially for coworker antagonism.

From another direction, researchers can explore the existence and strength of social network ties between coworkers and the focal employee (Balkundi & Harrison, 2006). Changing to a within-persons focus, researchers can also examine how work outcomes are influenced by positive and negative behaviors originating from the same coworker.

Because of the focus of our study, our attention was directed toward coworker influences (support and antagonism received from others) and the resulting outcomes for the individual and the organization, and did not examine the complex dynamics of receiving and giving resources. Giving is an important aspect, and studies (situated outside the workplace) have demonstrated that providing to others reduces givers’ mortality rates (e.g., Brown, Nesse, Vinokur, & Smith, 2003). It is yet to be examined whether giving to coworkers can translate into similar positive outcomes for the individual providers in organizations. Future research can explore the asymmetries of giving and receiving, in the same way we have examined other asymmetries.

Creating synergies with other theoretical perspectives. Stepping outside the boundaries of lateral relationships, theoretical advances could be made by simultaneously examining
influences emanating from coworkers, leaders, and the organization. Are the influences of all these social agents additive, interactive, or compensatory? Do they hold equally well across categories of outcomes? Research has started to uncover how supervisor and coworker behaviors are related to work outcomes, across valences and domains (Duffy et al., 2006). Future work can integrate our findings with results from the organization treated as a whole entity. The various environmental configurations obtained by crossing positive and negative influences originating from one’s organization, leader, and coworkers are, however, not investigated, and scarcely theorized upon.

Our results (especially those based on differential relationships) also have the potential to inform practical interventions. For example, if our results approximate the strength of causal effects, interventions directed at alleviating role ambiguity (perhaps the chief stressor on international assignments: Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005) might be geared toward coworkers ($\rho = -.42$ and $\rho = .39$ for support and antagonism, respectively) rather than leaders. Similarly, interventions aiming at decreasing turnover via coworker influences might start with coworkers ($\rho = -.17$ and $\rho = .22$ for support and antagonism, respectively) rather than leaders, which is an implication of embeddedness and unfolding theories. Turning to moderators, practitioners might likewise expect such coworker-based interventions to be more potent in those jobs in which the tasks have more demanding social requirements (e.g., multidisciplinary teams; Van der Vegt, Van de Vliert, & Oosterhof, 2003).

Limitations

Despite our attempt to be comprehensive and rigorous, our meta-analysis has several limitations. The lack of controlled experiments makes any statements about causal direction provisional, which is coupled with the fact that third variables may confound some of the
relationships. Still, prior support for our hypotheses comes from experimental studies of underlying frameworks and theories in social psychology (e.g., negative asymmetry, Cacioppo, Gardenr, & Berntson, 1997) and organizational studies (e.g., reciprocation; Eisenberger, Lynch, Aselage, & Rohdieck, 2004). In addition, models with a reverse causal direction lack an underlying theory and would be logically inconsistent, especially for some of our moderators. Finally, the causal direction is much less likely to be reversed for some of our relationships, examined using primary studies where the predictors and criteria were measured with a time lag (e.g., turnover studies). Future field research might more carefully track specific types of coworker influences, using small samples or highly descriptive cases that are more sensitive to the time ordering of coworker influences and employee outcomes.

Reported results are robust to potential null effects, signified by large failsafe $k$ numbers (Rosenthal, 1979). Yet, another limitation of this meta-analysis is comparatively few investigations of the “dark side” of influences originating from coworkers – antagonism. It is studied much less often than coworker support (similarly, negative ties have seen only limited investigation in the social network literature; Labianca & Brass, 2006). This makes some of our comparisons across the valence of coworker influences more tentative. Similarly, although for most of our proposed moderators of coworker influences confidence intervals show no overlap and thus provide stronger case for differential inferences, caution is warranted when interpreting some of these tests due to a greater possibility of second-order sampling error (Hunter & Schmidt, 2004). However, we hope our reporting of its strong relationship with many individual outcomes will spur more intense study of antagonism's severity and distribution over persons and times (e.g., Duffy et al., 2006). Future experimental studies would be particularly welcome, perhaps uncovering intervening factors such as the attributions we described above, for the
seemingly different targets of support and antagonism effects.

Finally, as in prior meta-analyses, some of the coworker and outcome constructs were measured via a single person's perspective (usually the focal employee's), and are potentially subject to inflation from common method variance. When possible, we showed the same pattern of linkages when different-source correlations could be compared. Still, if study participants could be identified by unit, it would seem fairly straightforward in future research to use split (within-unit) or self-other designs in which independent and dependent variables came from different sources (Brown, Treviño, & Harrison, 2005; Ostroff, Kinicki, & Clark, 2002).

Conclusion

For many decades, theorists have emphasized the importance of elements of the social context at work in general, and of coworkers in particular. Yet, coworkers have been given comparatively less systematic attention using integrative frameworks, and their influences on focal employees have not been organized and summarized. We attempted to do so, characterizing the influences brought by coworkers as support and antagonism, and assembling a framework to examine these relationships. We tested the proposed relationships using many thousands of observations from over one hundred sixty primary studies. Results are compelling. Coworkers matter – making the place – for a broad pattern of employee outcomes. And, they matter in asymmetric ways, depending on whether they are Sartre's devils or Butler's angels. We hope these cumulated, integrated, but complex findings stimulate research that investigates lateral influences in more detail, especially in combination with other parties who comprise the social environment at work.
Footnotes

1 We do not address attitudes directed toward the originating coworkers (e.g., trust, satisfaction, liking, or interpersonal attraction), as these could be argued to highly overlap with the input variables perceived to come from coworkers. We also equivalently refer to the individuals whose outcomes are assessed as "colleagues" of coworkers, or "focal employees."

2 Although support and antagonism are theoretically independent, negatively valenced forms of influence have seen much less investigation, and it is not possible to distinguish them by content for the current meta-analysis. Likewise, positively valenced forms of support have not been differentiated enough in the literature by their severity or the extent of "positive deviance" (Warren, 2003). Hence it is not possible to have a fully crossed examination of support versus antagonism by content versus severity.

3 Our discussion mirrors the directionality of most of our formal hypotheses, connecting coworker support with individual outcomes. When necessary, due to asymmetric or nuanced configurations of findings, we also briefly comment on coworker antagonism.
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Do Coworkers Make the Place?


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Table 1

Comparison of Coworker Support (and Antagonism) Standardized Coefficients with Leader Support (and Antagonism) Standardized Coefficients, Jointly Predicting Employee Individual Outcomes

<table>
<thead>
<tr>
<th>Predictors to Dependent Variables</th>
<th>Role Perceptions</th>
<th>Work Attitudes</th>
<th>Withdrawal</th>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RA</td>
<td>RC</td>
<td>RO</td>
<td>JS</td>
</tr>
<tr>
<td>Coworker Support</td>
<td>-.27</td>
<td>-.19</td>
<td>-.15</td>
<td>.27</td>
</tr>
<tr>
<td>Leader Support</td>
<td>-.39</td>
<td>-.22</td>
<td>-.22</td>
<td>.32</td>
</tr>
<tr>
<td>k</td>
<td>14</td>
<td>11</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>N (harmonic mean)</td>
<td>21,964</td>
<td>7,264</td>
<td>5,020</td>
<td>18,901</td>
</tr>
<tr>
<td>Coworker Antagonism</td>
<td>.31</td>
<td>.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leader Antagonism</td>
<td>.28</td>
<td>.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N (harmonic mean)</td>
<td>3,550</td>
<td>3,252</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Standardized coefficients are reported, significant at $p < .05$ for values exceeding $|.07|$ in either negative or positive direction.
Table 2

Comparison of Coworker Support and Antagonism Effect Sizes with Leader Effect Sizes

<table>
<thead>
<tr>
<th>Predictors to Dependent Variables</th>
<th>Role Perceptions</th>
<th>Work Attitudes</th>
<th>Withdrawal</th>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RA</td>
<td>RC</td>
<td>RO</td>
<td>JS</td>
</tr>
<tr>
<td>Coworker Support</td>
<td>-.42</td>
<td>-.27</td>
<td>-.22</td>
<td>.40</td>
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<tr>
<td>Coworker Antagonism</td>
<td>.39</td>
<td>.48</td>
<td>.24</td>
<td>-.30</td>
</tr>
<tr>
<td>Leader Effect: Median of Transformational b</td>
<td>-.33</td>
<td>-.31</td>
<td>.42</td>
<td>.27</td>
</tr>
<tr>
<td>Laissez-faire b</td>
<td></td>
<td></td>
<td></td>
<td>.58</td>
</tr>
<tr>
<td>Contingent Reward b, h</td>
<td>-.42</td>
<td></td>
<td></td>
<td>.58</td>
</tr>
<tr>
<td>Initiating Structure c, d, e, f</td>
<td>-.43</td>
<td>-.32</td>
<td>.30</td>
<td>.29</td>
</tr>
<tr>
<td>Consideration c, d, e, f, g</td>
<td>-.45</td>
<td>-.42</td>
<td>.53</td>
<td>.27</td>
</tr>
<tr>
<td>Noncontingent Reward h</td>
<td>.04</td>
<td>.17</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Contingent Punishment h</td>
<td>-.23</td>
<td>.12</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td>Noncontingent Punishment h</td>
<td>.32</td>
<td>-.39</td>
<td>-.30</td>
<td>.31</td>
</tr>
<tr>
<td>LMX i, j, k</td>
<td>-.43</td>
<td>-.31</td>
<td>.50</td>
<td>.42</td>
</tr>
</tbody>
</table>

Table 3

Meta-Analytic Relationships of Coworker Support and Antagonism with Employee Role Perceptions

<table>
<thead>
<tr>
<th>Dependent Variable with Independent Variables</th>
<th>k</th>
<th>N</th>
<th>Mean r</th>
<th>Var r</th>
<th>95% Confidence Interval</th>
<th>Estimated $\bar{\rho}$</th>
<th>Var $\bar{\rho}$</th>
<th>80% Credibility Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Ambiguity with Coworker Support</td>
<td>44</td>
<td>30,068</td>
<td>-337</td>
<td>005</td>
<td>(-.347, -.327)</td>
<td>-.416</td>
<td>.008</td>
<td>(-.533, -.299)</td>
</tr>
<tr>
<td>Coworker Antagonism</td>
<td>5</td>
<td>4,097</td>
<td>.318</td>
<td>.011</td>
<td>(.296, .340)</td>
<td>.391</td>
<td>.016</td>
<td>(.227, .555)</td>
</tr>
<tr>
<td>Role Conflict with Coworker Support</td>
<td>18</td>
<td>13,523</td>
<td>-.210</td>
<td>.007</td>
<td>(-.227, -.199)</td>
<td>-.273</td>
<td>.012</td>
<td>(-.413, -.133)</td>
</tr>
<tr>
<td>Coworker Antagonism</td>
<td>4</td>
<td>3,778</td>
<td>.430</td>
<td>.006</td>
<td>(.422, .448)</td>
<td>.479</td>
<td>.012</td>
<td>(.338, .620)</td>
</tr>
<tr>
<td>Role Overload with Coworker Support</td>
<td>27</td>
<td>9,013</td>
<td>-.190</td>
<td>.008</td>
<td>(-.207, -.173)</td>
<td>-.224</td>
<td>.012</td>
<td>(-.364, -.085)</td>
</tr>
<tr>
<td>Coworker Antagonism</td>
<td>1</td>
<td>198</td>
<td>.180</td>
<td></td>
<td></td>
<td>.245</td>
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<td></td>
</tr>
</tbody>
</table>
Table 4

Meta-Analytic Relationships of Coworker Support and Antagonism with Employee Work Attitudes

<table>
<thead>
<tr>
<th>Dependent Variable with Independent Variables</th>
<th>k</th>
<th>N</th>
<th>Mean r</th>
<th>Var. r</th>
<th>95% Confidence Interval</th>
<th>Estimated ρ</th>
<th>Var. ρ</th>
<th>80% Credibility Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction with Coworker Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coworker Support</td>
<td>100</td>
<td>31,966</td>
<td>.324</td>
<td>.017</td>
<td>(.290, .358)</td>
<td>.404</td>
<td>.033</td>
<td>(.171, .637)</td>
</tr>
<tr>
<td>Affective</td>
<td>17</td>
<td>10,228</td>
<td>.335</td>
<td>.009</td>
<td>(.315, .354)</td>
<td>.402</td>
<td>.013</td>
<td>(.237, .567)</td>
</tr>
<tr>
<td>Instrumental</td>
<td>17</td>
<td>3,977</td>
<td>.236</td>
<td>.009</td>
<td>(.219, .254)</td>
<td>.280</td>
<td>.014</td>
<td>(.130, .430)</td>
</tr>
<tr>
<td>Coworker Antagonism</td>
<td>10</td>
<td>7,578</td>
<td>-.234</td>
<td>.010</td>
<td>(-.213, -.256)</td>
<td>-.298</td>
<td>.018</td>
<td>(-.469, -.127)</td>
</tr>
<tr>
<td>Low Severity</td>
<td>3</td>
<td>3,236</td>
<td>-.171</td>
<td>.011</td>
<td>(-.193, -.150)</td>
<td>-.193</td>
<td>.013</td>
<td>(-.034, -.044)</td>
</tr>
<tr>
<td>High Severity</td>
<td>7</td>
<td>4,342</td>
<td>-.299</td>
<td>.004</td>
<td>(-.306, -.292)</td>
<td>-.376</td>
<td>.007</td>
<td>(-.048, -.271)</td>
</tr>
<tr>
<td>Job Involvement with Coworker Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coworker Support</td>
<td>35</td>
<td>11,182</td>
<td>.300</td>
<td>.011</td>
<td>(.277, .323)</td>
<td>.353</td>
<td>.013</td>
<td>(.210, .496)</td>
</tr>
<tr>
<td>Affective</td>
<td>8</td>
<td>2,427</td>
<td>.247</td>
<td>.007</td>
<td>(.234, .261)</td>
<td>.317</td>
<td>.009</td>
<td>(.193, .441)</td>
</tr>
<tr>
<td>Instrumental</td>
<td>3</td>
<td>797</td>
<td>.068</td>
<td>.001</td>
<td>(.066, .070)</td>
<td>.088</td>
<td>.001</td>
<td>(.043, .133)</td>
</tr>
<tr>
<td>Coworker Antagonism</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Commitment with Coworker Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coworker Support</td>
<td>56</td>
<td>19,334</td>
<td>.270</td>
<td>.011</td>
<td>(.247, .292)</td>
<td>.317</td>
<td>.018</td>
<td>(.145, .488)</td>
</tr>
<tr>
<td>Affective</td>
<td>12</td>
<td>5,644</td>
<td>.335</td>
<td>.016</td>
<td>(.304, .367)</td>
<td>.409</td>
<td>.027</td>
<td>(.196, .620)</td>
</tr>
<tr>
<td>Instrumental</td>
<td>9</td>
<td>1,960</td>
<td>.205</td>
<td>.011</td>
<td>(.183, .228)</td>
<td>.242</td>
<td>.169</td>
<td>(.076, .408)</td>
</tr>
<tr>
<td>Coworker Antagonism</td>
<td>6</td>
<td>2,865</td>
<td>-.213</td>
<td>.004</td>
<td>(-.204, -.221)</td>
<td>-.250</td>
<td>.008</td>
<td>(-.369, -.131)</td>
</tr>
</tbody>
</table>
Table 5

Meta-Analytic Relationships of Coworker Support and Antagonism with Employee Withdrawal

<table>
<thead>
<tr>
<th>Dependent Variable with Coworker Support and Antagonism</th>
<th>k</th>
<th>N</th>
<th>Mean r</th>
<th>Var. r</th>
<th>95% Confidence Interval</th>
<th>Estimated ρ</th>
<th>Var. ρ</th>
<th>80% Credibility Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effort Reduction with Coworker Support</td>
<td>8</td>
<td>2,217</td>
<td>-.181</td>
<td>.018</td>
<td>(-.216, -.145)</td>
<td>-.227</td>
<td>.022</td>
<td>(-.419, -.035)</td>
</tr>
<tr>
<td>Coworker Antagonism</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absenteeism with Coworker Support</td>
<td>26</td>
<td>7,601</td>
<td>-.077</td>
<td>.001</td>
<td>(-.078, -.075)</td>
<td>-.083</td>
<td>.001</td>
<td>(-.116, -.049)</td>
</tr>
<tr>
<td>Coworker Antagonism</td>
<td>3</td>
<td>2,959</td>
<td>.031</td>
<td>.002</td>
<td>(.028, .035)</td>
<td>.035</td>
<td>.002</td>
<td>(.024, .044)</td>
</tr>
<tr>
<td>Intent to Quit with Coworker Support</td>
<td>43</td>
<td>15,604</td>
<td>-.213</td>
<td>.005</td>
<td>(-.223, -.203)</td>
<td>-.265</td>
<td>.011</td>
<td>(-.397, -.133)</td>
</tr>
<tr>
<td>Coworker Antagonism</td>
<td>3</td>
<td>1,309</td>
<td>.204</td>
<td>.001</td>
<td>(.203, .205)</td>
<td>.259</td>
<td>.001</td>
<td>(.138, .290)</td>
</tr>
<tr>
<td>Turnover with Coworker Support</td>
<td>5</td>
<td>1,442</td>
<td>-.152</td>
<td>.006</td>
<td>(-.164, -.140)</td>
<td>-.168</td>
<td>.007</td>
<td>(-.279, -.056)</td>
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<tr>
<td>Coworker Antagonism</td>
<td>1</td>
<td>260</td>
<td>.200</td>
<td></td>
<td></td>
<td>.221</td>
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</tr>
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</table>
Table 6

Meta-Analytic Relationships of Coworker Support and Antagonism with Employee Effectiveness

<table>
<thead>
<tr>
<th>Dependent Variable with Independent Variables</th>
<th>k</th>
<th>N</th>
<th>Mean r</th>
<th>Var. r</th>
<th>95% Confidence Interval</th>
<th>Estimated ρ</th>
<th>Var. ρ</th>
<th>80% Credibility Interval</th>
</tr>
</thead>
</table>

**Counterproductive Work Behavior Directed at Individuals (CWB-I) with**

- Coworker Support
  - 1 286  -.060
- Coworker Antagonism
  - 6 1,720 .216 .008 (.200, .231) .254 .012 (.109, .394)
    - Low Severity
      - 2 901 .145 .001 (.145, .146) .172 .001 (.142, .202)
    - High Severity
      - 4 819 .294 .004 (.284, 303) .344 .008 (.223, .465)

**Counterproductive Work Behavior Directed at Organization (CWB-O) with**

- Coworker Support
  - 2 629  -.035 .001 (-.034, -.035) -.041 .001 (-.052, -.031)
- Coworker Antagonism
  - 1 121  .290 .349

(continued)
<table>
<thead>
<tr>
<th>Dependent Variable with Independent Variables</th>
<th>$k$</th>
<th>N</th>
<th>Mean $r$</th>
<th>Var. $r$</th>
<th>95% Confidence Interval</th>
<th>Estimated $\rho$</th>
<th>Var. $\rho$</th>
<th>80% Credibility Interval</th>
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<tbody>
<tr>
<td><strong>Organizational Citizenship Behavior</strong></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td><em>Individual-Directed, OCB-I</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coworker Support</td>
<td>11</td>
<td>2,514</td>
<td>.167</td>
<td>.003</td>
<td>(.160, .175)</td>
<td>.194</td>
<td>.005</td>
<td>(.108, .280)</td>
</tr>
<tr>
<td>Affective</td>
<td>5</td>
<td>1,381</td>
<td>.153</td>
<td>.005</td>
<td>(.143, .162)</td>
<td>.174</td>
<td>.006</td>
<td>(.074, .274)</td>
</tr>
<tr>
<td>Instrumental</td>
<td>4</td>
<td>1,223</td>
<td>.230</td>
<td>.004</td>
<td>(.223, .236)</td>
<td>.275</td>
<td>.004</td>
<td>(.196, .354)</td>
</tr>
<tr>
<td>Same Source</td>
<td>1</td>
<td>123</td>
<td>.170</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different Source</td>
<td>10</td>
<td>2,391</td>
<td>.140</td>
<td>.005</td>
<td>(.131, .149)</td>
<td>.158</td>
<td>.006</td>
<td>(.059, .256)</td>
</tr>
<tr>
<td>Coworker Antagonism</td>
<td>2</td>
<td>2,447</td>
<td>- .206</td>
<td>.000</td>
<td>(-.206, -.205)</td>
<td>-.238</td>
<td>.000</td>
<td>(-.254, -.222)</td>
</tr>
<tr>
<td><strong>Organizational Citizenship Behavior</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><em>Organization-Directed, OCB-O</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Coworker Support</td>
<td>8</td>
<td>1,550</td>
<td>.099</td>
<td>.002</td>
<td>(.094, .103)</td>
<td>.115</td>
<td>.003</td>
<td>(.042, .189)</td>
</tr>
<tr>
<td>Same Source</td>
<td>n/a</td>
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<td>.235</td>
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<td>(.213, .416)</td>
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<td>(.160, .244)</td>
<td>.242</td>
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Table 7

Meta-Analytic Relationships of Coworker Support with Outcomes in Low and High Social Intensity Task Environments

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<tr>
<th>Dependent Variable with Independent Variable</th>
<th>k</th>
<th>N</th>
<th>Mean r</th>
<th>Var. r</th>
<th>95% Confidence Interval</th>
<th>Estimated ρ</th>
<th>Var. ρ</th>
<th>80% Credibility Interval</th>
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<td>Low Social Intensity</td>
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</tbody>
</table>
Figure Caption

Figure 1. *Theoretical Framework Linking Coworker Influences with Individual Employee Outcomes*
**LEADER INFLUENCES**

**COWORKER INFLUENCES**

- Coworker Support (+)
- Coworker Antagonism (-)

**Content (+)**
- affective
- instrumental

**Social Intensity** (of task context)

**Severity (-)**
- low
- high

**EMPLOYEE OUTCOMES**

**Role Perceptions**
- role ambiguity
- role conflict
- role overload

**Work Attitudes**
- job satisfaction
- job involvement
- organizational commitment

**Withdrawal**
- effort reduction
- absenteeism
- intent to quit
- turnover

**Effectiveness (Interpersonal)**
- CWB-I
- OCB-I

**Effectiveness (Organizational)**
- CWB-O, OCB-O
- focal performance