

Why Teleworkers are More Satisfied with Their Jobs than are Office-Based Workers: When Less Contact is Beneficial

Kathryn L. Fonner & Michael E. Roloff

This study challenges assumptions regarding the value and necessity of frequent face-to-face workplace interaction by building upon a theoretical framework for the consequences of telecommuting. Using a multiple mediation approach and path analysis, the study examines the extent to which telework affects job satisfaction through the experiences of work–life conflict, stress due to meetings and interruptions, perceived organizational politics, and information exchange. Results reveal that high-intensity teleworkers (n = 89) are more satisfied than office-based employees (n = 103) and achieve significant benefits from their work arrangement, with work–life conflict most influential toward job satisfaction. The path model reveals more complex indirect paths linking telework and job satisfaction.

Keywords: Telework; Job Satisfaction; Organizational Politics; Meetings; Work–Life Conflict

Telework is a “work arrangement in which employees perform their regular work at a site other than the ordinary workplace, supported by technological connections” (Fitzer, 1997, p. 65), and has become increasingly prevalent in the United States (WorldatWork, 2009). Job satisfaction is one of the most commonly reported outcomes of telework (Pinsonneault & Boisvert, 2001), yet doubts remain regarding

Kathryn L. Fonner is an Assistant Professor in the Department of Communication at the University of Wisconsin-Milwaukee. Michael E. Roloff is a Professor in the Department of Communication Studies at Northwestern University. Data were collected as part of the first author’s dissertation. We would like to thank Laura Stafford and the anonymous *Journal of Applied Communication Research* reviewers for their thoughtful feedback during the review process. In addition, we thank Erik Timmerman and Mike Allen for their helpful suggestions on previous versions of this manuscript. Correspondence to: Kathryn L. Fonner, PO Box 413, Milwaukee, WI 53201, USA. E-mail: fonner@uwm.edu

the benefits and drawbacks of working remotely versus in a collocated environment (Conan, 2009). Building upon a theoretical framework evaluating the consequences of telecommuting (Gajendran & Harrison, 2007), we aim to reconcile some of the conflicting claims about the benefits and drawbacks of telework, with the goal of determining why telework positively influences job satisfaction.

Theoretical Framework: Linking Telework to Job Satisfaction

Organizational theorists have long recognized that interaction on the job is an important determinant of job satisfaction. Early organizational scholars such as Mayo (1949) and Maslow (1954) suggested that social interaction and other meaningful connections in the workplace would lead to employee motivation and need fulfillment. Subsequently, theorists noted that jobs offering opportunities for feedback, friendship, and dealing with others (Sims, Szilagyi, & Keller, 1976) should improve employee satisfaction. Because face-to-face communication allows for the exchange of multiple and rich cues, some scholars believe it enables the most salient interactions and associated positive outcomes (e.g., Short, Williams, & Christie, 1976), and that its advantages are irreplaceable (e.g., Olson, Teasley, Covi, & Olson, 2002). This privileging of face-to-face interaction has been recognized as a “paradigmatic or transtheoretic assumption, either implicitly or explicitly, in much western interpersonal and relational scholarship” (Stafford & Merolla, 2007, p. 38), and we suggest this assumption extends to organizational scholarship. Employees who see each other on a daily basis have access to relatively unrestricted channels of communication, which facilitate psychological closeness and social presence (Short et al., 1976). Working in a collocated environment may also foster mutuality, connection, and common ground (Olson & Olson, 2000), enhance communication quality (Burgoon et al., 2002), and produce greater levels of information exchange (Hollingshead, 2001). Conversely, employees with a diminished presence in the office and an increased reliance on technology may experience lower levels of appropriate communication, accurate information sharing, discussion quality, and communication richness (Lowry, Roberts, Romano, Cheney, & Hightower, 2006). According to these arguments, teleworkers’ job satisfaction should decrease based on reductions in the frequency and quality of their interactions with others. Indeed, some teleworkers have reported feeling isolated from the office network (Cooper & Kurland, 2002), which is negatively associated with job satisfaction (Chapman, Sheehy, Heywood, Dooley, & Collins, 1995).

However, a recent meta-analysis confirmed a positive relationship between telework and job satisfaction (Gajendran & Harrison, 2007), and other studies have identified a curvilinear relationship, with the number of teleworking hours per week increasing employee satisfaction to a point, at which the effect tapers slightly (e.g., Golden & Veiga, 2005). This suggests there are distinct benefits associated with restricted face-to-face interaction. Indeed, some communication scholars have questioned the notion that face-to-face interaction or a sense of “being there” are necessarily positive. Burgoon and her colleagues (2002) have noted that examining

structural affordances such as proximity, mediation, and synchronicity can help establish “whether face-to-face interaction is a necessary condition to achieve many communication purposes” (p. 660). Building upon this, we suggest that traditionally held beliefs about the positive value of face-to-face interaction may be over-generalized. We acknowledge there are some disadvantages of restricted face-to-face interaction, but propose it also affords a number of advantages.

Our argument aligns with Gajendran and Harrison’s (2007) theoretical framework for the consequences of telecommuting, which identifies intervening mechanisms through which remote work affects individual outcomes, including job satisfaction. The mediating variables in their model represent three conceptual themes within the telework literature: managing the interface between home and work, psychological control and autonomy, and the potential for isolation and relational impoverishment. These themes highlight a “paradox of mutually incompatible consequences for employees” (p. 1526), in that positive outcomes stemming from the first two may come at the expense of, or may be negatively correlated with, the third. However, tests of the model indicated that the intervening mechanisms influencing job satisfaction largely represent benefits rather than disadvantages of telework; higher autonomy fully mediated, and lower work–life conflict and *improved* supervisory relationship quality partially mediated the relationship between telework and satisfaction. We build upon this framework by proposing additional mediators to explain the telework → job satisfaction relationship and more fully explore the paradox outlined earlier.

First, in keeping with the original framework, we propose that teleworkers will be more satisfied based on their ability to diminish *work–life conflict*. Managing the boundary between work and personal roles has been identified as one of the key issues related to telework (Golden, Veiga, & Simsek, 2006), and diminishing work interference in personal responsibilities should continue to be an important source of satisfaction (Kossek & Ozeki, 1998).

Second, given the significance of perceived autonomy in linking telework to job satisfaction (Gajendran & Harrison, 2007), we propose two new mediators that represent experiences that may reduce employees’ sense of psychological control. Specifically, *stress from meetings and interruptions* and *perceptions of organizational politics* may represent a loss of perceived control and thus decrease job satisfaction. Telework may allow employees to escape workplace distractions (Nardi & Whittaker, 2002) and interruptions (Konradt, Hertel, & Schmook, 2003), and disengage from office politics (Ellison, 2004), which should be satisfying.

Third, in order to explore the paradox outlined in the framework, we seek to reconcile the effect of the aforementioned benefits against the potential for teleworkers to feel disconnected. Tests of the original framework indicated that telework was positively related to supervisory relationship quality, but that extensive telework damaged coworker relationships. However, only supervisory relationship quality mediated the telework → job satisfaction relationship. We suggest that *information exchange* may be a more relevant mechanism to represent teleworkers’ sense of connectedness. Previous research indicates that teleworkers

fear isolation from the information network (Cooper & Kurland, 2002), and that isolation is negatively related to job satisfaction (Chapman et al., 1995). We propose that teleworkers' satisfaction should be linked to their ability to remain connected through frequent and high quality information exchange.

Congruent with the original framework, we propose that these proximal outcomes may be heightened for *high-intensity* teleworkers, which we identify as those who work remotely at least three days a week. High-intensity teleworkers are heavily reliant on communication technology, and their teleworking identity should be more salient relative to employees who telework at lower levels (Bailey & Kurland, 2002). The framework tests an "emerging perspective on telecommuting intensity" (Gajendran & Harrison, 2007, p. 1529), highlighting the psychological threshold that separates and creates differential experiences for employees working remotely versus in a collocated environment for more than half of their workweek. Meta-analytic tests of the framework revealed that employees teleworking at least 2.5 days a week experienced significantly lower work–life conflict and lower quality coworker relationships compared to those teleworking 2.5 days or fewer per week. Similarly, Konradt and colleagues (2003) found that employees teleworking more than 50% of the workweek experienced different stressors and motivations relative to *office-centered* and *nonteleworking* employees working at least 50% of their workdays in a central location (p. 66). Wiesenfeld, Raghuram, and Garud (1999) also found that employees teleworking over three days a week maintained different communication patterns than those working at least three days a week in a centralized location. Although telework can take many forms (Garrett & Danziger, 2007) and may represent both spatial and temporal distance (O'Leary & Cummings, 2007), we examine teleworkers based on the extent of time spent working away from the collocated office. There is initial evidence indicating that high-intensity teleworkers' experiences are distinctive from those of employees working at least half of their workdays in a collocated setting. Hence, we compare high-intensity teleworkers to office-based employees, in order to test the proposed mediators of the telework → job satisfaction relationship. To follow, we provide support for our proposed mediators and test the hypothesized model.

Work–Life Conflict

Of the positive outcomes associated with telework, employee productivity and improved work–life balance are among the most commonly cited (Shia & Monroe, 2006). These are desirable benefits, as employees' job satisfaction decreases when their work and personal responsibilities interfere with each other (Kossek & Ozeki, 1998). Scholars have probed the extent to which telework allows for better balance between work and personal roles (Kurland & Bailey, 1999), and this relationship has been clarified by examining work–life conflict and life–work conflict separately, and by identifying moderating variables. Work–life conflict represents the extent to which work interferes with one's personal life, and life–work conflict represents the extent to which one's personal life interferes with work. Home-based teleworkers in particular

face distinctive challenges in maintaining personal and work boundaries (Golden et al., 2006), and may struggle with life-work conflict. However, some studies show that telework diminishes both work-life and life-work conflict (e.g., Raghuram & Wiesenfeld, 2004) by enabling employees to proactively schedule their time and minimize interference between work and personal domains. We focus on the influence of telework on job satisfaction through the mediating mechanism of work-life conflict, as the interference of work in one's personal responsibilities has a greater influence on job satisfaction (Kossek & Ozeki, 1998) and job stress (Raghuram & Wiesenfeld, 2004) than does the interference of personal responsibilities in work. Certainly, factors such as job autonomy (Kossek, Lautsch, & Eaton, 2006), family duties (DuBrin, 1991), and partner career status (Bailey & Kurland, 2002), may affect work and personal boundaries. But overall, telework appears to decrease work-life conflict.

H1: Work-life conflict will mediate the greater job satisfaction experienced by high-intensity teleworkers relative to office-based employees.

Stress from Meetings, Interruptions, and Distractions

Teleworkers may also encounter fewer distractions relative to those working in a collocated environment (Mann, Varey, & Button, 2000). The workplace is rife with opportunities for interruption and distraction, which in turn generate stress and reduce job satisfaction (Makin, Rout, & Cooper, 1988). Employees typically participate in numerous meetings during the week, which increases fatigue and the extent to which they feel rushed and stressed about their ability to produce the quality and quantity of work expected (Luong & Rogelberg, 2005). In addition, unexpected conversations, telephone calls, e-mails, and background noise may inhibit employees' ability to be totally involved in the task at hand (Jett & George, 2003). Although colleagues' interruptions may provide feedback, information, and networking opportunities employees may not otherwise obtain, they may be a source of frustration. In general, extensive meetings and interruptions likely spur negative feelings and prevent employees from structuring and accomplishing tasks (Leonardi, Treem, & Jackson, 2010), which we propose represents a loss of psychological control and may decrease job satisfaction. Hence, a diminished presence in the office may benefit teleworkers by diluting their exposure to certain interruptions and distractions. Employees often telework when they need to withdraw from workplace communication, avoid meetings, and have uninterrupted time to concentrate (Nardi & Whittaker, 2002). Certainly, telework cannot diminish all interruptions, given the availability of communication technology (Leonardi et al., 2010) and the potential for non-work-related interruptions (Hunton, 2005). However, telework may afford greater boundary control and power to diminish interruptions and distractions, which should relieve stress and be positively related to job satisfaction.

- H2: Stress due to meetings and interruptions will mediate the greater job satisfaction experienced by high-intensity teleworkers relative to office-based employees.

Organizational Politics

Although scholars have predominantly analyzed organizational politics among collocated employees (Vigoda, 2003), we propose that telework may diminish employees' exposure to organizational politics. Indeed, previous research has suggested that teleworkers are "less likely [to] be part of the informal political network" (Hill, Ferris, & Martinson, 2003, p. 224). In addition, teleworkers have noted that they are able to escape from office politics and gossip (Ellison, 2004), and that working remotely inhibits engagement in organizational politics (Cooper & Kurland, 2002).

When employees feel they work in an individualistic and politicized climate, this may challenge their sense of control and lead to dissatisfaction. Perceived organizational politics have been linked to outcomes such as lower job satisfaction (Vigoda, 2003), lower commitment (Cropanzano, Howes, Grandey, & Toth, 1997), and increased anxiety (Kacmar, Bozeman, Carlson, & Anthony, 1999). Thus, we propose that teleworkers will be more satisfied due to their reduced exposure to organizational politics.

- H3: The experience of organizational politics will mediate the greater job satisfaction experienced by high-intensity teleworkers relative to office-based employees.

Information Exchange

The potential for teleworkers to become isolated remains a common theme in the literature. Gajendran and Harrison (2007) suggested that telework would impair relationships with coworkers and supervisors, but their tests did not support this claim. We propose that teleworkers' ability to sustain important connections may be better represented by their information exchange with others. When employees receive the information they desire and need, they tend to be more satisfied with their job (Trombetta & Rogers, 1988) and their work relationships (Spiker & Daniels, 1981). Conversely, when employees perceive the quantity and quality of information they send and receive is inadequate, they experience frustration and may consider leaving the organization (Scott et al., 1999). We suggest that employees will feel sufficiently connected, and thus more satisfied, when they frequently communicate with supervisors and peers (Alexander, Helms, & Curran, 1987), and are involved in the exchange of high quality and timely information.

Collocated work environments afford ample opportunities for information exchange, whereas telework diminishes opportunities for interaction (Mann et al., 2000). Although communication technologies can enable connectivity (Leonardi et al., 2010), relying on these technologies reduces teleworkers' opportunities to communicate synchronously and exchange information using all human senses

(Hinds & Kiesler, 1995). This may decrease the total amount of information available (Burgoon et al., 2002) and the quality of communication (Lowry et al., 2006). Face-to-face groups tend to share and discuss more information than do mediated groups (Hollingshead, 2001), and collocated work environments allow for greater overall levels of information exchange (Weisband, 2002). Telework not only limits information exchange frequency, but it also may hinder the flow of timely and quality information. Teleworkers report missing out on informal learning opportunities (Kurland & Bailey, 1999), peer interactions critical to career development (Teo, Lim, & Wai, 1998), interpersonal networking (Cooper & Kurland, 2002), access to supervisors and colleagues, and the transfer of tacit knowledge (Raghuram, 1996). Thus, teleworkers' job satisfaction may be negatively affected by limitations to frequent and quality information exchange.

H4: Information exchange frequency and quality will mediate the greater job satisfaction experienced by high-intensity teleworkers relative to office-based employees.

Method

Sample and Procedure

The sample included 89 teleworkers and 103 office-based employees (see Table 1). Participants were recruited via e-mail and through two telework websites. The snowball method was used to recruit participants by sending e-mails to personal contacts as well as to the alumni of a terminal Master's in Communication program at a mid-sized university. In addition, a brief study description and a link to the online survey were posted on two telework-focused websites: The Telework Coalition (www.telcoa.org), and Gil Gordon Associates (www.gilgordon.com). To qualify for the study, participants were required to self-select into one of two categories, based on the best description of their current work arrangement. Those who indicated they did not fit into either category were not given survey access. After data collection, 11 participants were removed because their work arrangement did not meet study criteria.

Demographics. Several demographic variables were included in the survey based on their potential link to study variables (see Table 1). Age may be associated with career or family demands, and *organizational position* and *organization type* may relate to expectations for interaction with colleagues and to job stress (Raghuram & Weisenfeld, 2004). *Organizational tenure* and *job tenure* represent the amount of time spent in particular roles, which may influence responses to work arrangements (Bailey & Kurland, 2002). *Marital status*, *parental status*, and *gender* may influence work-family conflict (Kossek et al., 2006). Teleworking participants were significantly older, $t(190) = 4.83, p < .001, r = .33$, had longer job tenure, $t(190) = 3.26, p < .01, r = .23$, and organizational tenure, $t(190) = 4.39, p < .001, r = .30$, and were more likely to be married, $\chi^2(2, N = 192) = 18.99, p < .001, \Phi = .31$; and have children, $\chi^2(1, N = 192) = 15.49, p < .001, \Phi = -.28$. These five demographic differences

Table 1 Demographic Information and Descriptive Statistics

	Teleworking employees		Office-based employees	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Age (years)	42.88	10.18	35.86	9.95
Organizational tenure (years)	10.40	8.94	5.44	6.69
Job tenure (years)	5.83	6.59	3.31	3.98
	Frequency	%	Frequency	%
Gender				
Male	35	39.3	49	47.57
Female	53	59.6	53	51.46
Missing	1	0.00	1	1.00
Marital status				
Single	9	10.10	37	35.90
Married	75	84.30	58	56.30
Divorced	5	5.60	8	7.80
Has children				
Yes	64	71.90	45	43.70
No	25	28.10	58	56.30
Organizational position				
Administrative	5	5.60	9	8.70
Entry level	4	4.50	6	5.80
Between entry level/ mid-management	22	24.70	28	27.20
Middle management	37	41.60	39	37.90
Upper management	6	6.70	10	9.70
Executive	5	5.60	3	2.90
Other	10	11.20	7	6.80
Missing	0	0.00	1	1.00
Type of organization				
Privately owned	35	39.30	40	38.80
Publicly owned	44	49.40	39	37.90
Nonprofit	3	3.40	8	7.80
Public sector/government	4	4.50	5	4.90
Public education	1	1.10	6	5.80
Other	2	2.30	5	4.80

were included in the study models. There were no significant differences in gender, organizational position, or organizational type.

Measures

Work arrangement. Participants self-selected into one of two work arrangement categories (see Table 2). *Telecommuters* were those who have an ongoing arrangement to work at least 3 days a week from a remote location (Konradt et al., 2003). We label these *high-intensity teleworkers* (Gajendran & Harrison, 2007). *Office-based employees* were those working in a collocated environment at least three days a week.

Table 2 Survey Criteria for Participant Self-Selection into Work Categories

Please read the following choices carefully, and choose the one that best describes your work environment (check one):

1. OFFICE-BASED EMPLOYEE: I work in an office setting and do not have a prearranged agreement with my employer to work at least three times a week at a location other than the office. (Note: This fits if you work primarily in an office but travel occasionally for work or occasionally work from home. It also fits if you are a consultant who travels to a client location each week, but you work with a team of people from your own organization at the client site. Finally, it also applies to people whose organizations aren't traditional offices, such as those who work in hospitals, clinics, schools, government agencies, etc. The primary requirement is that you work in the same location with other people from your organization at least three times a week.)
 2. TELECOMMUTER: I have a prearranged agreement with my employer to regularly work at least three days a week from a location other than the office, such as working from home. In this other location, I am physically isolated from other members of the organization. (This category does not include contract workers.)
 3. NEITHER OF THE ABOVE: Neither of these describes my work arrangement.
-

Work-life conflict. Based on items used by Hill and colleagues (2003), a five-item scale was utilized, with high scores representing higher interference of work in employees' personal lives. The final analysis utilized a four-item version of the scale. The following item was removed to improve scale reliability: "To what extent do you believe your work impacts your management of child/elder care responsibilities?" A confirmatory factor analysis supported a one-factor model, $\chi^2(2, N = 192) = 4.51$, $p = .11$, CFI = .99, RMSEA = .08.

Stress from meetings and interruptions. Based on literature highlighting the consequences of meetings (Luong & Rogelberg, 2005) and interruptions (Jett & George, 2003), a seven-item scale was developed to represent employees' anxiety, frustration, time pressure, and stress due to meetings, interruptions, and distractions. A confirmatory factor analysis verified the one-factor model, $\chi^2(7, N = 192) = 8.94$, $p = .26$, CFI = 1.00, RMSEA = .04.

Perceived organizational politics. The Perceived Organizational Politics scale (Kacmar & Ferris, 1991) was used; this scale is composed of items that cluster into three subscales. The *general political* subscale consists of six items that assess the prevalence of power abuse and favoritism in the organization. The *going along to get ahead* subscale includes four items reflecting the degree to which political behavior influences reward distribution and conformity in the organization. Finally, two items constitute the "pay for promotion" subscale and reflect the extent that promotion is determined by politics. Due to a coding error in the "pay for promotion" items, only the general political and get ahead measures could be used. A confirmatory factor analysis verified these as two distinct factors, $\chi^2(31, N = 192) = 46.93$, $p < .05$, CFI = .98, RMSEA = .05.

Information exchange. Based on research indicating that the frequency of interaction with colleagues spurs a sense of information adequacy (Alexander et al., 1987), an original four-item scale was developed to represent employees' frequency of information exchange with colleagues through informal conversations,

e-mails, meetings, and in general. Building on research highlighting the significance of employees' perceptions of information quality, of which timeliness is a key indicator (O'Reilly, 1982), an original four-item scale for *information exchange quality* was developed to represent the perceived quality and timeliness of information exchanged with colleagues. A confirmatory factor analysis confirmed the two scales are distinct, $\chi^2(16, N=192) = 24.41, p = .08, CFI = .99, RMSEA = .05$.

Job satisfaction. This was measured using a five-item scale representing global job satisfaction (Pond & Geyer, 1991). A confirmatory factor analysis indicated that a one-factor model fits the data, $\chi^2(5, N=192) = 9.34, p = .10, CFI = 1.00, RMSEA = .07$.

For all measures, scale items, descriptive statistics, and alpha coefficients are listed in Table 3, and bivariate correlations are included in Table 4. Scale items were measured using seven-point Likert-type scales, with higher means representing greater levels of each variable.

Results

First, we conducted a preliminary analysis using a multiple mediation approach (Preacher & Hayes, 2008). This provided unstandardized direct effects, as well as the unique indirect effect of each mediating variable and the combined overall effect of the mediating variables on the telework \rightarrow job satisfaction relationship. Six mediators and five demographic controls were entered into the model simultaneously. The multiple mediation approach utilizes a bootstrap test—for which we generated 5000 samples—to produce 95% confidence intervals which indicate a significant indirect effect if they do not include zero. Next, a path analysis using AMOS 7.0 (Arbuckle, 2006) with Maximum Likelihood Estimation was conducted to test the adequacy of the proposed multiple mediation model. *Mplus* (Muthen & Muthen, 2007) was used to test each of the individual indirect paths from a predictor to the outcome variable. A bootstrapping method was employed to evaluate each indirect path; 5,000 samples were created and a 95% confidence interval was used for a given indirect path.

Preliminary Analysis

The multiple mediation analysis indicated a significant direct effect, $B = 0.62, SE = 0.19, p < .01$, and total effect, $B = 0.82, SE = 0.23, p < .001$, between telework and job satisfaction. For H1, teleworkers reported significantly lower work–life conflict relative to office-based employees, $B = -0.56, SE = 0.24, p < .05$, and work–life conflict was significantly related to job satisfaction, $B = -0.21, SE = 0.06, p < .001$. Bootstrap tests revealed that work–life conflict partially mediated the telework \rightarrow job satisfaction relationship, 95% bootstrap CI .018 to .272. H1 was supported.

Results for H2 showed that teleworkers experienced significantly less stress due to meetings and interruptions relative to office-based employees, $B = -0.59, SE = 0.19, p < .01$, but that stress was not significantly related to job satisfaction, $B = -0.06,$

Table 3 Descriptive Statistics and Survey Items

Scale items	<i>M</i>	<i>SD</i>	α
Information exchange			
<i>Frequency</i>			
• During the course of a typical day, how often do you exchange information with colleagues?	5.21	1.22	.67
• During the course of a typical day, how often do you meet with colleagues to share information?			
• During the course of a typical day, how often do you have informal conversations with colleagues to share information?			
• During the course of a typical day, how often do you e-mail with colleagues to share information?			
<i>Quality</i>			
• I share information with my colleagues in a timely way.	5.77	1.05	.86
• My colleagues share information with me in a timely way.			
• The information I share with colleagues is valuable and of high quality.			
• The information my colleagues share with me is valuable and of high quality.			
Work-life conflict			
• To what extent do you believe your work impacts your management of home chores?	4.30	1.61	.87
• To what extent do you believe your work impacts your relationship with your spouse/partner and/or children?			
• To what extent do you believe your work impacts your personal stress level?			
• To what extent do you believe your work impacts your ability to balance work and personal/home responsibilities?			
Stress from meetings and interruptions			
• How often do you feel your work is interrupted due to scheduled meetings?	3.49	1.30	.87
• To what extent are you frustrated due to the number of meetings you must participate in?			
• How often do you feel pressure because meetings take you away from your work?			
• To what extent do you feel interrupted when colleagues talk with you?			
• How often do your colleagues' conversations with you take you away from your work?			
• To what extent do your colleagues' conversations with you generate anxiety, given the work that you need to get done?			
• To what extent are you distracted by other things going on in your work environment, such as background noise?			
Perceived organizational politics			
<i>General political items</i>			
• Favoritism rather than merit determines who gets ahead around here.	3.08	1.32	.85
• There has always been an influential group in my department that no one ever crosses.			
• People here usually don't speak up for fear of retaliation by others.			
• People in this organization attempt to build themselves up by tearing others down.			
• I have seen changes made in policies here that only serve the purposes of a few individuals, not the work unit or the organization.			
• There is a group of people in my department who always get things their way because no one wants to challenge them.			
<i>Going along to get ahead items</i>			
• There is no place for yes-men around here: good ideas are desired even when it means disagreeing with superiors. (r)	3.34	1.29	.80

Table 3 (Continued)

Scale items	M	SD	α
<ul style="list-style-type: none"> • Employees are encouraged to speak out frankly even when they are critical of well-established ideas. (r) • Rewards come only to those who work hard in this organization. (r) • Promotions in my department generally go to top performers. (r) 			
Job satisfaction			
<ul style="list-style-type: none"> • Knowing what you know now, if you had to decide all over again whether to take the job you now have, what would you decide? 1 (“definitely not take the job”) to 7 (“definitely take the job”) • If a good friend asked if he/she should apply for a job like yours with your employer, what would you recommend? 1 (“not recommend at all”) to 7 (“recommend strongly”) • How does this job compare with your ideal job? 1 (“very far from ideal”) to 7 (“very close to ideal”) • In general, how does your job measure up to the sort of job you wanted when you took it? 1 (“not at all like I wanted”) to 7 (“just like I wanted”) • All things considered, how satisfied are you with your current job? 1 (“not at all satisfied”) to 7 (“completely satisfied”) • In general, how much do you like your job? 1 (“not at all”) to 7 (“a great deal”) 	5.11	1.51	.94

$SE = 0.08$, $p = .43$. Stress from meetings and interruptions did not significantly mediate the relationship between telework and job satisfaction, 95% bootstrap CI -0.058 to $.174$. H2 was not supported.

For H3, teleworkers perceived significantly lower levels of *general political* behavior relative to office-based employees, $B = -0.42$, $SE = 0.21$, $p < .05$, but there was no significant difference in their perceptions of *get ahead* political behaviors, $B = -0.25$, $SE = 0.20$, $p = .23$. Bootstrap results showed that neither *general political* behavior, 95% bootstrap CI -0.010 to $.199$, nor behavior aimed at *getting ahead*, 95% bootstrap CI -0.064 to $.338$, mediated the relationship between telework and job satisfaction. H3 was not supported.

Table 4 Bivariate Correlations for Study Variables

Variable	2	3	4	5	6	7	8
1. Work arrangement (office-based 0, telework 1)	-.32**	.10	-.26**	-.27**	-.15*	-.06	.28**
2. Information exchange frequency		.32**	.17*	.40**	-.001	-.14*	.09
3. Information exchange quality			-.21**	-.12	-.22**	-.31**	.36**
4. Work-life conflict				.43**	.16*	.17*	-.37**
5. Stress from meetings/interruptions					.27**	.23**	-.27**
6. General politics						.64**	-.47**
7. Get ahead politics							-.56*
8. Job satisfaction							

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

For H4, teleworkers reported significantly less frequent, $B = -0.79$, $SE = 0.18$, $p < .001$, but not lower quality, $B = 0.18$, $SE = 0.17$, $p = .27$, information exchange relative to office-based employees. Information exchange frequency was significantly related to job satisfaction, $B = 0.18$, $SE = 0.09$, $p < .05$, but information exchange quality was not, $B = 0.15$, $SE = 0.09$, $p = .09$. Bootstrap tests showed that information exchange frequency partially mediated the telework \rightarrow job satisfaction relationship, 95% bootstrap CI $-.349$ to $-.012$, but that information exchange quality did not, 95% bootstrap CI $-.018$ to $.167$. H4 was supported for information exchange frequency but not supported for information exchange quality.

Overall, the multiple mediation analysis revealed two significant indirect paths: telework \rightarrow work-life conflict \rightarrow job satisfaction, $\rho = .12$, $SE = 0.06$, and telework \rightarrow information exchange frequency \rightarrow job satisfaction, $\rho = -.15$, $SE = 0.08$. Pairwise contrasts revealed that the parameters of these indirect paths differed significantly in magnitude, 95% CI $-.492$ to $-.083$.

Path Analysis

A path analysis was conducted to test the adequacy of the proposed mediation model, by examining the direct relationship between telework and job satisfaction as well as the indirect paths from telework to job satisfaction running through work-life conflict, information exchange frequency, information exchange quality, stress from meetings and interruptions, general politics, and get ahead politics. The five aforementioned demographic variables were entered as covariates. Figure 1 contains the path model and standardized parameters for the various paths.

The results were generally consistent with preliminary tests. Teleworkers reported significantly lower work-life conflict, less stress from meetings and interruptions, less perceived general politics, and lower information exchange frequency, but greater job satisfaction than did office-based employees. Telework was not significantly related to information quality or to perceived get ahead politics. Only two of the mediators were significantly related to job satisfaction. Reporting work-life conflict and perceiving get ahead politics were negatively linked to job satisfaction. The indirect path from telework \rightarrow information exchange frequency \rightarrow job satisfaction was not significant, $\rho = -.04$, $SE = -1.49$, $p = .14$, 95% bootstrap CI $-.970$ to $.013$. Only the indirect path from telework \rightarrow work-life conflict \rightarrow job satisfaction was statistically significant, $\rho = .06$, $SE = 2.58$, $p < .01$, 95% bootstrap CI $.014$ to $.104$. However, the fit of the path model was inconsistent with conventional standards, $\chi^2(50, N = 192) = 294.13$, $p < .001$, CFI = .66, and RMSEA = .16, 90% CI $.140$ to $.178$.

A number of the expected paths were confirmed, but other paths were not, indicating that the original model may require modification. Research aids in the interpretation of these results and suggests alternative and more complex paths that can be tested. Consistent with Gajendran and Harrison's framework (2007), we tested multiple mediators but treated each mediator as being unrelated to any other. It is possible that the mediators may be related to each other and, hence, form longer paths to job satisfaction. One such path involves information exchange frequency,

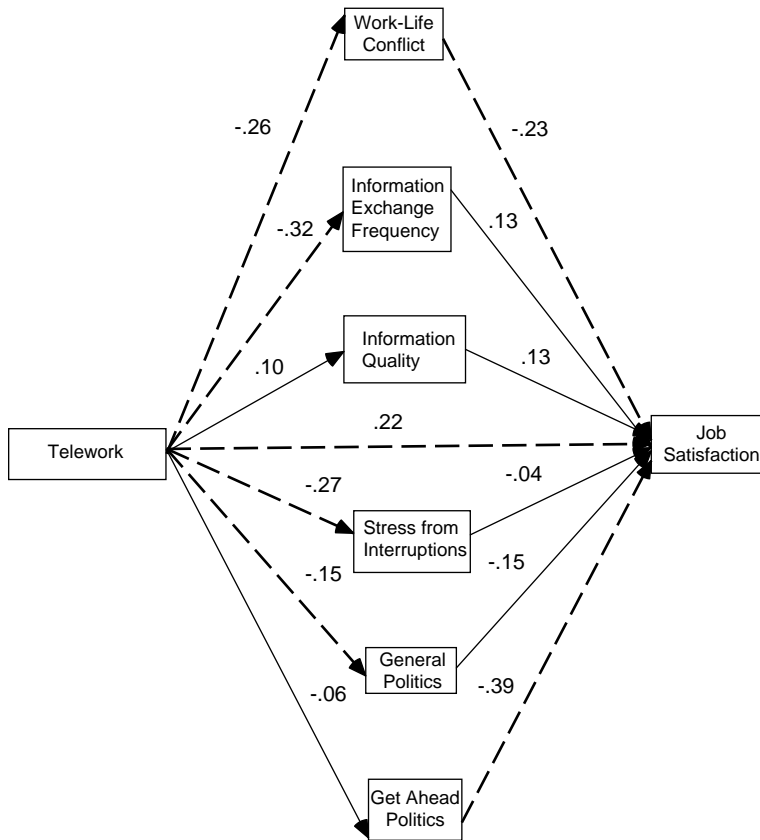


Figure 1. Initial path-analytic model: Relationship of work arrangement to job satisfaction, mediated by work-life conflict, information exchange frequency, information quality, stress from meetings and interruptions, general politics and get ahead politics, $\chi^2(50, N = 192) = 294.13, p < .001, CFI = .66,$ and $RMSEA = .16, 90\% CI .140$ to $.178$. All values are standardized parameter estimates. Broken lines indicate statistically significant relationships, $p < .05$.

stress from meetings and interruptions, and work-life conflict. Our initial model assumed that each of these variables would have a unique indirect effect on the relationship between telework and job satisfaction. Results showed that telework was significantly related to stress from meetings and interruptions and to information exchange frequency, but that neither of these was significantly related to job satisfaction. Our original model may be too simple. Previous research indicates that managers schedule meetings and ask about employees' work progress (a form of interruption) in order to gain control over their work-life boundary, which increases employees' work-life conflict (Perlow, 1998). Managers may be less able to use these forms of boundary control with teleworkers, and teleworkers may also strategically disconnect from communication technologies to prevent attempts at boundary control and to diminish stress. We propose that teleworkers have less contact with

coworkers and supervisors, which alleviates stress from meetings and interruptions and work–life conflict.

Tests of our original model also indicated that telework was significantly related to perceptions of *general politics* but not to perceptions of *going along to get ahead politics*, and that only the latter was significantly linked to job satisfaction. It is possible that the original paths were too simple. Telework may be related to job satisfaction through a more complex indirect path linking the two types of politics. Scholars have noted that in some organizations an “ingroup” forms, which allows its members to pursue their own self-interest; in such cases, employees may perceive a politically charged climate (Kacmar & Carlson, 1997, p. 630). This perception may increase the likelihood that employees who are not part of the ingroup need to go along with that group in order to advance their own self-interest. Indeed, Kacmar and Carlson (1997) noted that employees often avoid “rocking the boat” in order to pursue their “own self-interest when working in a political environment” (p. 630). Similarly, under uncertain conditions, employees “may go along with plans they know to be flawed but that are favored by key managers” (Hochwarter, Witt, & Kacmar, 2000, p. 473) in order to get ahead. Furthermore, it may be the act of conforming to politics—or the sense that others in the organization must conform—that generates a sense of disingenuousness and diminishes satisfaction. Hence, telework may limit exposure to and engagement in the overall political climate, but the degree to which general politics are perceived should be positively related to the perceived need to go along to get ahead, which in turn should be negatively related to satisfaction.

Finally, given the positive relationship between perceived organizational politics and job stress (Cropanzano et al., 1997), it follows that employees who perceive they must work within the confines of the political climate may become increasingly stressed when they interact with others in meetings or informal conversations. After all, political actions may take place in such conversational and decision making venues. If so, the need to conform and uphold the self-serving behavior of others (going along to get ahead) may generate greater stress associated with meetings and interruptions, which will heighten the spillover of work into the personal domain and ultimately decrease job satisfaction.

In order to determine if the model might be revised to support the relationships outlined above, we trimmed nonsignificant paths and examined modification indices to determine if new paths could be added (Kline, 2005). The following nonsignificant paths were removed: telework → information quality; telework → get ahead politics; information exchange frequency → job satisfaction; information quality → job satisfaction; stress from meetings/interruptions → job satisfaction; and perceived general politics → job satisfaction. When analyzing the modification indices, a conservative strategy was employed. We only selected new paths that could be justified according to our rationale, that had values greater than 9 rather than the more conventional value of 4, and that were linked to one of the three factors that predicted job satisfaction (i.e., telework, work–life conflict, and get ahead politics). Four new paths were added: information exchange frequency → stress from meetings/interruptions;

stress from meetings/interruptions → work–life conflict; general politics → get ahead politics; get ahead politics → stress from meetings/interruptions.

The standardized parameters of the modified model are presented in Figure 2; unstandardized parameters and standard errors for direct effects and covariates are listed in Table 5. The fit of the modified path model was reasonable (Browne & Cudek, 1993), $\chi^2(40, N = 192) = 72.05$, $p < .001$, $CFI = .95$, and $RMSEA = .065$, 90% CI .040 to .088. The direct path from telework to job satisfaction remained statistically significant, $\rho = .19$, $SE = 0.17$, $p < .001$, 95% bootstrap CI .093 to .298. The indirect path from telework → work–life conflict → job satisfaction was significant, $\rho = .03$, $SE = 1.48$, $p = .05$, 95% bootstrap CI .000 to .075. In addition, a longer significant indirect path was identified that connected telework, work–life conflict, and job satisfaction: telework → information exchange frequency → stress from meetings/interruptions → work–life conflict → job satisfaction, $\rho = .01$, $SE = 2.33$, $p < .05$, 95% bootstrap CI .002 to .021. Another significant indirect path was uncovered, linking telework to job satisfaction through perceived politics: telework → perceived general politics → perceived get ahead politics → job satisfaction, $\rho = .05$, $SE = 2.04$, $p < .05$, 95% bootstrap CI .001 to .097.

The test of the modified model indicated that work–life conflict remained an important link between telework and job satisfaction. The model also provided

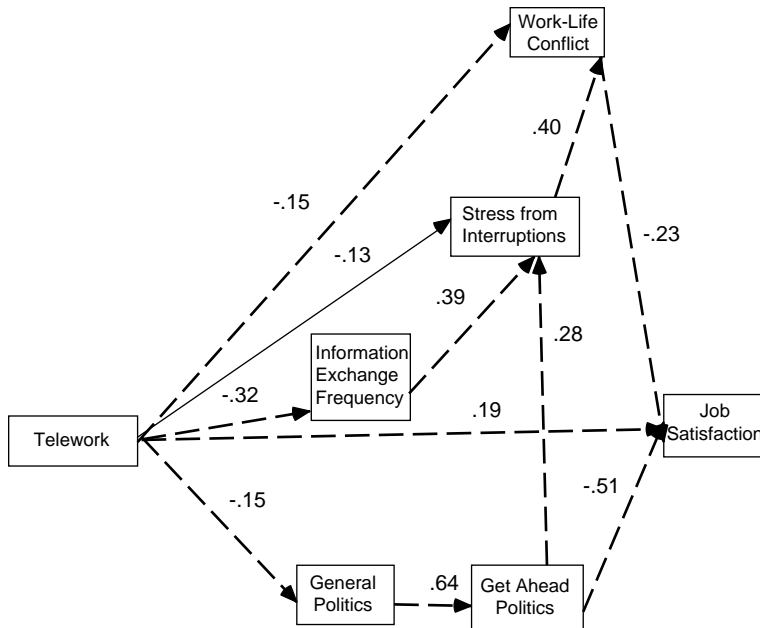


Figure 2. Revised path-analytic model: Relationship of work arrangement to job satisfaction, mediated by work-life conflict, information exchange frequency, stress from meetings and interruptions, general politics, and get ahead politics, $\chi^2(40, N = 192) = 72.05$, $p < .001$, $CFI = .95$, and $RMSEA = .065$, 90% CI .040 to .088. All values are standardized parameter estimates. Broken lines indicate statistically significant relationships, $p < .05$.

Table 5 Revised Path Analytic Model: Direct Effects and Covariates

	ρ	SE
Direct effects		
Telework → General politics	−0.41*	0.19
Telework → Information exchange	−0.79***	0.17
General politics → Get ahead politics	0.63***	0.05
Telework → Stress from meetings/interruptions	−0.33	0.17
Information exchange → Stress from meetings/interruptions	0.43***	0.07
Get ahead politics → Stress from meetings/interruptions	0.28***	0.06
Telework → Work-life conflict	−0.48*	0.22
Stress from meetings/interruptions → Work-life conflict	0.49***	0.08
Telework → Job satisfaction	0.59***	0.17
Get ahead politics → Job satisfaction	−0.59***	0.07
Work-life conflict → Job satisfaction	−0.22***	0.05
Covariates		
Telework with age	1.75***	0.40
Telework with job tenure	0.63**	0.20
Telework with organizational tenure	1.23***	0.31
Telework with marital status	0.06**	0.02
Telework with children	−0.07***	0.02
Job tenure with age	29.79***	4.72
Job tenure with organizational tenure	24.36***	3.68
Job tenure with marital status	0.51*	0.21
Job tenure with children	−0.69***	0.20
Organizational tenure with age	52.71***	7.33
Organizational tenure with marital status	0.96**	0.319
Organizational tenure with children	−1.40***	0.31
Age with marital status	2.31***	0.44
Age with children	−2.66***	0.43
Marital status with children	−0.14***	0.02

* $p < .05$, ** $p < .01$, *** $p < .001$.

evidence of other mediated paths. The path to work–life conflict can be derived through a more complex chain of experiences that stem from telework. Teleworkers reported less information exchange and that was negatively related to stress associated with meetings and interruptions. The lack of stress was inversely related to work–life conflict, which aided job satisfaction. Organizational politics also mediated the telework → job satisfaction relationship. Teleworkers perceived less general politics and in turn, perceived less get ahead politics, which increased job satisfaction. As in the first analysis, the indirect paths partially mediated the telework → job satisfaction relationship.

Discussion

This study builds upon the theoretical framework for the consequences of telecommuting (Gajendran & Harrison, 2007) by proposing new mediating mechanisms that connect telework to job satisfaction. Results showcase the benefits of high-intensity telework and help explain the satisfaction associated with working away from the stressors of the collocated workplace. Although some research has

shown that extensive telework may plateau the positive relationship between telework and job satisfaction (e.g., Golden, 2006), our findings indicate that despite the challenges brought on by working remotely over 50% of the time, high-intensity teleworkers remain more satisfied than employees working in a collocated setting the majority of the time.

Study results raise questions about the inherent value of frequent interaction that is afforded in face-to-face environments. Previous research has shown that although collocated environments enable greater levels of information exchange (Weisband, 2002), increased communication can at times lead to too much information for employees (Alexander et al., 1987), and may generate a sense of overload and hinder performance (O'Reilly, 1980). Similarly, our findings suggest that telework is negatively related to information exchange frequency, but is also associated with better management of the work–life boundary, lower levels of stress due to interruptions, and less exposure to self-interested and unjust behaviors. In general, these results reflect the three conceptual themes outlined in the theoretical framework, although our final model indicates that less interaction with others may be beneficial. Teleworkers report significantly less work–life conflict than office-based employees, confirming previous research linking higher intensity telework to decreased work–life conflict (Gajendran & Harrison, 2007). Teleworkers also experience less stress due to meetings and interruptions, and less awareness of general organizational politics, which suggests they may enjoy a level of autonomy and independence from the office. Finally, teleworkers exchange information less frequently than do office-based employees, indicating that remote work may inhibit connectedness or enable employees to disconnect purposefully.

Our model also provides new insight regarding the path linking telework to job satisfaction. Tests of the original framework showed that work–life conflict and supervisory relationship quality partially mediated, and perceived autonomy fully mediated, the relationship between telework and job satisfaction (Gajendran & Harrison, 2007). In the current study we find support for additional mediating mechanisms. The initial multiple mediation analysis indicated that work–life conflict and information exchange frequency significantly mediated the telework→job satisfaction relationship. This test identified information exchange frequency as an asset for office-based employees' job satisfaction, but these results were not upheld in subsequent analyses due to the relatively weak link between information exchange frequency and job satisfaction. The final path model provides support for five of our proposed mediators, albeit through more complex indirect paths than originally hypothesized.

First, work–life conflict mediates the relationship between telework and job satisfaction in two ways. As predicted, spending less than 50% of the week in the collocated office affords more flexibility and aids in the balance of work and personal roles, which teleworkers find satisfying. This represents the traditional rationale linking telework to job satisfaction through work–life conflict. A more complex path is also revealed. High-intensity telework is associated with less frequent information exchange, which relates to lower stress from meetings and interruptions. Stress from

meetings and interruptions is connected to greater work–life conflict, which in turn links to job satisfaction. This could reflect a spillover effect. Collocated work environments clearly involve a great deal of information flow and interruptions that are stressful. Stress may arise from a feeling of information overload and the inability to complete tasks in a timely fashion. Office-based employees in particular may experience a negative spillover effect through which the overabundance of information and interruptions generate work-related stress, which flows into their personal lives and is ultimately dissatisfying. Our findings suggest that high-intensity teleworkers avoid some of these stressors and as a result are more satisfied.

Second, the model highlights the pivotal role played by organizational politics in connecting telework to job satisfaction. Organizational politics have primarily been examined in face-to-face environments (Vigoda, 2003), and this study represents a step forward in identifying the extent to which political behaviors transcend geographical, technological, and temporal boundaries. Results show that perceptions of organizational politics mediate the relationship between telework and job satisfaction, through a path connecting the two types of political behaviors. High-intensity teleworkers are less likely to perceive that *general political* behavior is pervasive in the organization, and in turn are less likely to perceive that people conform to political behavior in order to get ahead. Being less exposed to, or perceiving less of, this type of *going along to get ahead* behavior is linked to higher job satisfaction. Organizational politics have also been associated with negative outcomes such as job neglect (Vigoda, 2003) and turnover intentions (Cropanzano et al., 1997). We conclude that decreased face-time in the office affords a distinct advantage by limiting teleworkers' exposure to political behavior, or at least allowing them to feel removed enough to downplay its prevalence. It is possible that organizations with telework arrangements are more encouraging, open, trusting, and fair. But given the widespread implementation of telework across various organizations and industries, this seems a far-fetched generalization. Rather, it seems that teleworking the majority of the time provides a needed respite from the ongoing political behavior inherent in the everyday workplace. Politics appears to be one of the significant "pressures that office work exerts on employees" (Bailey & Kurland, 2002, p. 384) that employees may mitigate via remote work.

Overall, our model highlights the benefits of remote work and questions the paradox outlined in the original theoretical framework. The proposed paradox suggests that telework will be associated with some proximal outcomes that benefit, and others that detract, from satisfaction. The original meta-analysis did not support this, as telework was *positively* related to supervisory relationship quality, which mediated the telework→job satisfaction relationship. Similarly, our results do not support the proposed paradox. Initial tests showed diminished information exchange frequency as a disadvantage of telework, but this was not supported in the path models. Rather, our final model indicates that less frequent interaction with others may be desirable. This supports recent findings that teleworkers view increased connectivity and interaction with others as an interference in their ability to work without interruptions and maintain work–life balance (Leonardi et al., 2010). In that

study, teleworkers reported utilizing communication technologies to strategically maintain connections with others while also sustaining a sense of distance in order to protect their autonomy and flexibility. Our findings are also consistent with research that suggests frequent face-to-face communication is not always necessary to produce positive outcomes. For example, partners in long-distance dating relationships often are more satisfied with their relationships than are geographically close partners (Stafford & Merolla, 2007). Reductions in face-to-face communication in those relationships can lead to higher idealization, love, reminiscence, perceived agreement, and communication quality. And, congruent with our findings, long-distance couples who become geographically close report that increased interaction diminishes their autonomy and time management capabilities (Stafford, Merolla, & Castle, 2006). Hence, we conclude that restricted interaction and connectivity does not appear to be as problematic as originally supposed. Indeed, teleworkers may view connectivity as impeding on the valued benefits of their work arrangement (Leonardi et al., 2010). Telework may provide a distinct advantage by acting as a filter to inhibit information overload and stress, while allowing employees to focus on sustaining important connections to the office network. Thus, a diminished presence in the office appears more likely to alleviate superfluous communication and stress than to isolate employees from necessary information and connections, as has been the concern in much of the telework literature.

In sum, our findings emphasize the advantages of restricted face-to-face interaction, and also highlight the need for organizations to identify and address the problematic and unsatisfying issues inherent in collocated work environments. In particular, this study provides initial evidence that teleworking the majority of the time allows employees to filter out some of the distracting and stressful aspects of the workplace and in turn experience greater job satisfaction. High-intensity teleworkers appear to benefit from their decreased physical presence in the office, which shields them from constant information flow, meetings and interruptions, unjust power plays, and other aspects of work that generate stress and interfere with personal responsibilities.

Practical Application

Several practical applications can be derived from this study. First, high-intensity telework arrangements earn credibility. Study findings may help skeptical managers see teleworkers' satisfaction as more than simply the enjoyment of working away from the office. Results show that working remotely the majority of the time alleviates forms of stress and distraction—including acting as a buffer from workplace injustice—which may provide a more productive and satisfying work environment. High-intensity teleworkers also benefit from a greater balance between work and their personal lives, which should increase job satisfaction, decrease turnover intent and job stress (Gajendran & Harrison, 2007), and relate to employee motivation and other positive outcomes (Hill et al., 2003).

Organizational and economic trends—such as globalization, technological advances, and the significance of flexibility and mobility to employee recruitment and retention—may augment the need for organizations to consider the full spectrum of telework arrangements, including those that are more extensive. For example, due to technological developments, real estate costs, and the need for skilled labor, organizations are expanding the number of employees they hire on as home-based teleworkers (Shellenbarger, 2007). In addition, employees with access to a socially rich technological system tend to increase the number of days they telework per week (Venkatesh & Johnson, 2002). Whether the consideration of extensive telework stems from necessity or opportunity, based on study findings, managers and employees can remain confident in the many advantages associated with high-intensity telework.

In addition to highlighting the value of telework, study results indicate a need for organizations to identify and address workplace norms and structures that contribute to information glut, stress, and work–life conflict. There are several potential strategies organizations might consider for dealing with these issues. Collaborative teams could be encouraged to limit the number of scheduled meetings, and to only involve team members who are vital to the meeting objectives. In addition, an organization-wide focus on streamlining information exchange may help alleviate information overload. Employees tend to be most satisfied when they feel information is “carefully designed and delivered purposefully” (Zhu, May, & Rosenfeld, 2004, pp. 263–264). Therefore, organizations must find ways to limit mass email, encourage thoughtful information exchange, and provide common spaces where information can be stored and accessed by employees according to their needs (e.g., intranet site or shared servers). Organizations should also consider the extent to which employees’ information needs are tied to their role and work arrangement. Research has shown that office employees need and receive more information than field employees, and that their job satisfaction is more closely tied to receiving various types of information (Rosenfeld, Richman, & May, 2004). Frequent interaction may provide some benefits for collocated employees who desire more information. But diminished interaction doesn’t necessarily hinder, and may provide some unique advantages for those working the majority of the time away from the office. In general, meetings and information exchange within organizations should be tailored to employees’ needs in order to prevent overload and stress.

Organizations should also consider implementing temporal, physical, and technological boundaries that facilitate uninterrupted work, aid work–life balance, and allow employees to avoid office politics. For example, upon discovering that employees viewed their colleagues’ requests for help as unwanted interruptions, an American Fortune 500 company scheduled blocks of “quiet time” during the workday so that employees had uninterrupted time to work (Perlow & Weeks, 2002, p. 353). Physical boundaries within the organization may also be useful, such as “quiet offices” where employees can work when they need to focus without distraction. Finally, if employees feel they must be constantly connected and available for work, organizations may need to focus on a combination of temporal, physical, and technological boundaries to help alleviate stress and work–life conflict. For example,

requiring employees to take prescheduled time off and to disconnect from work has been shown to improve work–life balance, job satisfaction, performance, and open communication (Perlow & Porter, 2009). Overall, organizations should identify creative strategies to support work–life balance, diminish workplace distractions, and tailor information to employees' specific needs.

Finally, organizations should also determine ways in which political behavior can be addressed. Specifically, organizations need to regularly audit their reward and promotion practices, look for ways to encourage dissenting opinions while sustaining a supportive climate, and provide “safe” venues for employees to vent and register concerns or complaints. Organizations that implement successful solutions to diminish employee stress, information overload, perceptions of political behavior, and work–life conflict, may create a highly satisfying work environment for office-based and remote employees.

Limitations and Future Directions

There are several study limitations. Our sample may not adequately represent teleworking and collocated employee populations, as we examined high-intensity teleworkers and did not randomly select participants. Self-report data may exaggerate the benefits of telework and reflect teleworkers' appreciation of their flexible work arrangement. Teleworkers may have worked full-time in the office previously, and may work with collocated or distributed teams, which may influence their work experiences and satisfaction. Future research should evaluate these issues, and results should be replicated using participants from the same organizational unit. In addition, future studies should examine the effects of telework on all employees, as office workers may be adversely affected by telework prevalence and intensity (Golden, 2007).

Because we only found evidence of partial mediation, it is essential that future research identify other indirect paths that might fully account for the relationship between telework and job satisfaction. For example, we found that the degree to which work conflicts with one's personal life is a significant mediator but because we did not include a measure of the degree to which personal life conflicts with work, it was not possible to assess its role as a mediator. Perhaps working at home increases the likelihood that interruptions from family or friends prevent the timely completion of work. Also, researchers should investigate the possibility of moderated mediation. Not all individuals may experience a given mediator in the same fashion and mediated may paths become stronger if certain moderators are included in the model. For example, personality dimensions such as locus of control may influence how employees are affected by meeting load (Luong & Rogelberg, 2005). Individual differences such as political skill (Ferris, Frink, & Galang, 1993) may influence reactions to organizational politics. And job requirements such as task interdependence (Golden & Veiga, 2005) may influence the need for information exchange.

Although continued validation is warranted, study findings highlight the significant advantages of high-intensity telework, thus calling into question the notion that decreased face-to-face communication is detrimental to employees.

References

- Alexander, E. R., Helms, M. M., & Curran, K. E. (1987). An information processing analysis of organization information adequacy/abundance. *Management Communication Quarterly*, 1, 150–172.
- Arbuckle, J. L. (2006). *AMOS 7.0 user's guide*. Chicago, IL: SPSS.
- Bailey, D. E., & Kurland, N. B. (2002). A review of telework research: Findings, new directions, and lessons for the study of modern work. *Journal of Organizational Behavior*, 23, 383–400.
- Browne, M. W., & Cudek, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage.
- Burgoon, J. K., Bonito, J. A., Ramirez, A., Dunbar, N. E., Kam, K., & Fischer, J. (2002). Testing the interactivity principle: Effects of mediation, propinquity, and verbal and nonverbal modalities in interpersonal interaction. *Journal of Communication*, 52, 657–677.
- Chapman, A. J., Sheehy, N. P., Heywood, S., Dooley, B., & Collins, S. C. (1995). The organizational implications of teleworking. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (pp. 229–248). New York, NY: Wiley.
- Conan, N. (2009, July 29). *What's great and what's not about telecommuting*. Talk of the Nation. Washington, DC: National Public Radio. Recording and transcript retrieved August 3, 2009, from <http://www.npr.org/templates/transcript/transcript.php?storyId=111328733>
- Cooper, C. D., & Kurland, N. B. (2002). Telecommuting, professional isolation, and employee development in public and private organizations. *Journal of Organizational Behavior*, 23, 511–532.
- Cropanzano, R., Howes, J. C., Grandey, A. A., & Toth, P. (1997). The relationship of organizational politics and support to work behaviors, attitudes, and stress. *Journal of Organizational Behavior*, 18, 159–180.
- DuBrin, A. J. (1991). Comparison of the job satisfaction and productivity of telecommuters versus in-house employees: A research note on work in progress. *Psychological Reports*, 68, 1223–1234.
- Ellison, N. B. (2004). *Telework and social change: How technology is reshaping the boundaries between home and work*. Westport, CT: Praeger.
- Ferris, G. R., Frink, D. D., & Galang, M. C. (1993). Diversity in the workplace: The human resources management challenges. *Human Resources Planning*, 16, 41–51.
- Fitzer, M. M. (1997). Managing from afar: Performance and rewards in a telecommuting environment. *Compensation and Benefits Review*, 29, 65–73.
- Gajendran, R. S., & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. *Journal of Applied Psychology*, 92, 1524–1521.
- Garrett, R. K., & Danziger, J. N. (2007). Which telework? Defining and testing a taxonomy of technology-mediated work at a distance. *Social Science Computer Review*, 25, 27–47.
- Golden, T. D. (2006). The role of relationships in understanding telecommuter satisfaction. *Journal of Organizational Behavior*, 27, 319–340.
- Golden, T. D. (2007). Co-workers who telework and the impact on those in the office: Understanding the implications of virtual work for co-worker satisfaction and turnover intentions. *Human Relations*, 60, 1641–1667.
- Golden, T. D., & Veiga, J. F. (2005). The impact of extent of telecommuting on job satisfaction: Resolving inconsistent findings. *Journal of Management*, 31, 301–318.

- Golden, T. D., Veiga, J. F., & Simsek, Z. (2006). Telecommuting's differential impact on work-family conflict: Is there no place like home? *Journal of Applied Psychology, 91*, 1340–1350.
- Hill, E. J., Ferris, M., & Martinson, V. (2003). Does it matter where you work? A comparison of how three work venues (traditional office, virtual office, and home office) influence aspects of work and personal/family life. *Journal of Vocational Behavior, 63*, 220–241.
- Hinds, P., & Kiesler, S. (1995). Communication across boundaries: Work, structure, and the use of communication technologies in a large organization. *Organization Science, 6*, 373–393.
- Hochwarter, W. A., Witt, L. A., & Kacmar, K. M. (2000). Perceptions of organizational politics as a moderator of the relationship between consciousness and job performance. *Journal of Applied Psychology, 85*, 472–478.
- Hollingshead, A. B. (2001). Communication technologies, the Internet, and group research. In M. A. Hogg & R. S. Tindale (Eds.), *Blackwell handbook of social psychology: Group processes* (pp. 557–573). Malden, MA: Blackwell Publishing.
- Hunton, J. E. (2005). Behavioral self-regulation of telework locations: Interrupting interruptions! *Journal of Information Systems, 19*, 111–140.
- Jett, Q. R., & George, J. M. (2003). Work interrupted: A closer look at the role of interruptions in organizational life. *Academy of Management Review, 28*, 494–507.
- Kacmar, K. M., Bozeman, D. P., Carlson, D. S., & Anthony, W. P. (1999). An examination of the perceptions of organizational politics model: Replication and extension. *Human Relations, 52*, 383–416.
- Kacmar, K. M., & Carlson, D. S. (1997). Further validation of the Perceptions of Organizational Politics Scale (POPS): A multiple sample investigation. *Journal of Management, 23*, 627–658.
- Kacmar, K. M., & Ferris, G. R. (1991). Perceptions of Organizational Politics Scale (POPS): Development and construct validation. *Educational and Psychological Measurement, 51*, 193–205.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York, NY: Guilford Press.
- Konradt, U., Hertel, G., & Schmook, R. (2003). Quality of management by objectives, task-related stressors, and non-task related stressors as predictors of stress and job satisfaction among teleworkers. *European Journal of Work and Organizational Psychology, 12*, 61–79.
- Kossek, E. E., Lautsch, B. A., & Eaton, S. C. (2006). Telecommuting, control, and boundary management: Correlates of policy use and practice, job control, and work-family effectiveness. *Journal of Vocational Behavior, 68*, 347–367.
- Kossek, E. E., & Ozeki, C. (1998). Work-family conflict, policies, and the job-life satisfaction relationship: A review and directions for organizational behavior/human resources research. *Journal of Applied Psychology, 83*, 139–149.
- Kurland, N. B., & Bailey, D. E. (1999). Telework: The advantages and challenges of working here, there, anywhere, and anytime. *Organizational Dynamics, 28*, 53–68.
- Leonardi, P. M., Treem, J. W., & Jackson, M. H. (2010). The connectivity paradox: Using technology to both decrease and increase perceptions of distance in distributed work arrangements. *Journal of Applied Communication Research, 38*, 85–105.
- Lowry, P. B., Roberts, T. L., Romano, N. C., Cheney, P. D., & Hightower, R. T. (2006). The impact of group size and social presence on small-group communication: Does computer-mediated communication make a difference? *Small Group Research, 37*, 631–661.
- Luong, A., & Rogelberg, S. G. (2005). Meetings and more meetings: The relationship between meeting load and the daily well-being of employees. *Group Dynamics: Theory, Research and Practice, 9*, 58–67.
- Makin, P. J., Rout, U., & Cooper, C. L. (1988). Job satisfaction and occupational stress among general practitioners—a pilot study. *Journal of the Royal College of General Practitioners, 38*, 303–306.
- Mann, S., Varey, R., & Button, W. (2000). An exploration of the emotional impact of tele-working via computer-mediated communication. *Journal of Managerial Psychology, 15*, 668–690.

- Maslow, A. H. (1954). *Motivation and personality*. New York, NY: Harper & Row.
- Mayo, E. (1949). *Hawthorne and the Western Electric Company: The social problems of an industrial civilization*. London, UK: Routledge.
- Muthen, L. K., & Muthen, B. O. (2007). *Mplus user's guide* (5th ed.). Los Angeles, CA: Muthen & Muthen.
- Nardi, B. A., & Whittaker, S. (2002). The place of face-to-face communication in distributed work. In P. Hinds & S. Kiesler (Eds.), *Distributed work* (pp. 83–110). Cambridge, MA: MIT Press.
- O'Leary, M. B., & Cummings, J. N. (2007). The spatial, temporal, and configurational characteristics of geographic dispersion in teams. *MIS Quarterly*, 31, 433–452.
- Olson, G. M., & Olson, J. S. (2000). Distance matters. *Human-Computer Interaction*, 15, 139–178.
- Olson, J. S., Teasley, S., Covi, L., & Olson, G. (2002). The (currently) unique advantages of collocated work. In P. Hinds & S. Kiesler (Eds.), *Distributed work* (pp. 113–135). Cambridge, MA: MIT Press.
- O'Reilly, C. A. (1980). Individuals and information overload in organizations: Is more necessarily better? *Academy of Management Journal*, 23, 684–696.
- O'Reilly, C. A. (1982). Variations in decision makers' use of information sources: The impact of quality and accessibility of information. *Academy of Management Journal*, 25, 756–771.
- Perlow, L. A. (1998). Boundary control: The social ordering of work and family time in a high-tech corporation. *Administrative Science Quarterly*, 43, 328–357.
- Perlow, L. A., & Porter, J. L. (2009). Making time off predictable and required. *Harvard Business Review*, 87, 103–109.
- Perlow, L. A., & Weeks, J. (2002). Who's helping whom? Layers of culture and workplace behavior. *Journal of Organizational Behavior*, 23, 345–361.
- Pinsonneault, A., & Boisvert, M. (2001). The impacts of telecommuting on organizations and individuals: A review of the literature. In N. J. Johnson (Ed.), *Telecommuting and virtual offices: Issues and opportunities* (pp. 163–185). Hershey, PA: Idea Group Publishing.
- Pond, S. B., & Geyer, P. D. (1991). Differences in the relation between job satisfaction and perceived work alternatives among older and younger blue-collar workers. *Journal of Vocational Behavior*, 39, 251–262.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879–889.
- Raghuram, S. (1996). Knowledge creation in the telework context. *International Journal of Technology Management*, 11, 859–870.
- Raghuram, S., & Wiesenfeld, B. (2004). Work-nonwork conflict and job stress among virtual workers. *Human Resource Management*, 43, 259–277.
- Rosenfeld, L. B., Richman, J. M., & May, S. K. (2004). Information adequacy, job satisfaction and organizational culture in a dispersed-network organization. *Journal of Applied Communication Research*, 32, 28–54.
- Scott, C. R., Connaughton, S. L., Diaz-Saenz, H. R., Maguire, K., Ramirez, R., Richardson, B., et al. (1999). The impacts of communication and multiple identifications on intent to leave: A multimethodological exploration. *Management Communication Quarterly*, 12, 400–435.
- Shellenbarger, S. (2007, November 15). Good news for professionals who want to work from home. *Wall Street Journal*. Retrieved August 4, 2009, from <http://online.wsj.com/article/ShtmlB1195076693615932072007D1>
- Shia, S. M., & Monroe, R. W. (2006). Telecommuting's past and future: A literature review and research agenda. *Business Process Management Journal*, 12, 455–482.
- Short, J., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications*. London, UK: Wiley.
- Sims, H. P., Szilagyi, A. D., & Keller, R. T. (1976). The measurement of job characteristics. *Academy of Management Journal*, 19, 195–212.

- Spiker, B. K., & Daniels, T. D. (1981). Information adequacy and communication relationships: An empirical examination of 18 organizations. *Western Journal of Speech Communication*, 45, 342–354.
- Stafford, L., & Merolla, A. J. (2007). Idealization, reunions, and stability in long-distance dating relationships. *Journal of Social and Personal Relationships*, 24, 37–54.
- Stafford, L., Merolla, A. J., & Castle, J. D. (2006). When long-distance dating partners become geographically close. *Journal of Social and Personal Relationships*, 23, 901–919.
- Teo, T. S. H., Lim, V. K. G., & Wai, S. H. (1998). An empirical study of attitudes towards teleworking among information technology (IT) personnel. *International Journal of Information Management*, 18, 329–343.
- Trombetta, J. J., & Rogers, D. P. (1988). Communication climate, job satisfaction, and organizational commitment: The effects of information adequacy, communication openness, and decision participation. *Management Communication Quarterly*, 1, 494–514.
- Venkatesh, V., & Johnson, P. (2002). Telecommuting technology implementations: A within-and between-subjects longitudinal field study. *Personnel Psychology*, 55, 661–687.
- Vigoda, E. (2003). *Developments in organizational politics*. Northampton, MA: Edward Elgar.
- Weisband, S. (2002). Maintaining awareness in distributed team collaboration: Implications for leadership and performance. In P. Hinds & S. Kiesler (Eds.), *Distributed work* (pp. 311–334). Cambridge, MA: MIT Press.
- Wiesenfeld, B. M., Raghuram, S., & Garud, R. (1999). Communication patterns as determinants of organizational identification in a virtual organization. *Organizational Science*, 10, 777–790.
- WorldatWork. (2009). *Telework trendlines 2009*. Retrieved August 4, 2009, from http://www.workingfromanywhere.org/news/Trendlines_2009.pdf
- Zhu, Y., May, S. K., & Rosenfeld, L. B. (2004). Information adequacy and job satisfaction during merger and acquisition. *Management Communication Quarterly*, 18, 241–270.

Copyright of Journal of Applied Communication Research is the property of National Communication Association and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.