

The Experience of Time at Work: Relationship to Communication Load, Job Satisfaction, and Interdepartmental Communication

Dawna I. Ballard & David R. Seibold

To cite this article: Dawna I. Ballard & David R. Seibold (2006) The Experience of Time at Work: Relationship to Communication Load, Job Satisfaction, and Interdepartmental Communication, *Communication Studies*, 57:3, 317-340, DOI: [10.1080/10510970600845974](https://doi.org/10.1080/10510970600845974)

To link to this article: <https://doi.org/10.1080/10510970600845974>



Published online: 03 Feb 2007.



Submit your article to this journal [↗](#)



Article views: 1932



View related articles [↗](#)



Citing articles: 4 View citing articles [↗](#)

The Experience of Time at Work: Relationship to Communication Load, Job Satisfaction, and Interdepartmental Communication

Dawna I. Ballard & David R. Seibold

This study examined 393 organizational members' reported communication load, job satisfaction, and interdepartmental communication satisfaction in relation to their experience of time along eleven dimensions—flexibility, linearity, pace, punctuality, delay, scheduling, separation, urgency, scarcity, and future and present time foci. Results indicate that organizational members who experienced their time as more delayed, more flexible, and more oriented toward the future tended to report higher levels of communication load. Additionally, members who characterized their work as more punctual and oriented toward the future were more satisfied with their jobs, while those who experienced work as faster paced were less satisfied. Finally, the organizational members most satisfied with communication among departments reported their work patterns as more linear and more strongly oriented toward the future, while members who reported their work as more delayed were least satisfied with such interdepartmental interactions.

Keywords: Chronemics; Communication; Communication load; Job satisfaction; Temporality; Time

There is a growing literature demonstrating connections between communication and human temporality across a variety of contexts (Albarran & Arrese, 2003; Ballard

Dawna I. Ballard is an assistant professor in the Department of Communication Studies at the University of Texas at Austin, TX 78712. David R. Seibold is a professor in the Department of Communication, and Co-director of the Graduate Program in Management Practice, at the University of California, Santa Barbara, CA 93106-4020. Correspondence to: Dr. D. I. Ballard, Department of Communication Studies, University of Texas at Austin, 1 University Station A1105, Austin, TX 78712. Tel.: (512) 471-1946; E-mail: diballard@mail.utexas.edu

& Seibold, 2000, 2003, 2004a, 2004b; Bennett, 2000; Bruneau, 1996; Holmer-Nadesan, 1997; Hylmö & Buzzanell, 2003; Kirby & Krone, 2002; Kuhn, 2000; McCann & Giles, 2002; McKerrow, 1999; Nadesan, 1997; Peterson, 1996; Wolburg, 1999, 2001; Wolburg & Taylor, 1998). These studies reveal that “time”—whether construed objectively, subjectively, or intersubjectively (Ballard & Seibold, 2004b)—is crucially implicated in communication-related processes and effects. Communication mediates and moderates the relationship between time and many practices and structures of interest to communication scholars (e.g., as in the works above: media market decisions, intimate relationships, intercultural interactions, telecommuting, organizational policies, ageism, politics, gender, life span transitions, and television advertising), and it is an outcome of those interactions (McGrath & Kelly, 1986). Indeed, time is fundamentally a communicative construction (Bourdieu, 1977).

In addition to a burgeoning literature in our discipline, the study of organizational temporality has seen explosive growth across a number of fields since the turn of the century. Despite the promise of this growing area of research, like many literatures in their infancy, work time scholarship suffers from a lack of continuity. This is needed in order to help advance further development and synergy in this important area of scholarship. Previously, we have endeavored to join current conversations grappling with these issues (Ancona, Okhuysen, & Perlow, 2001; Ballard & Seibold, 2003; Bluedorn, 2002; Lee & Liebenau, 1999) and to explicitly articulate a communication perspective on such matters, including a common language for the communicative study of time. This study both sharpens and expands that perspective. It examines members’ reported *communication load*, *job satisfaction*, and *interdepartmental communication satisfaction* in relation to their temporal experience along eleven dimensions—*flexibility*, *linearity*, *pace*, *punctuality*, *delay*, *scheduling*, *separation*, *scarcity*, *urgency*, and *present and future time focus*. In previous research, we have focused on the communicative *origins* of members’ temporal experience (Ballard & Seibold, 2000, 2003, 2004b) and the *dimensions* of organizational temporality (Ballard & Seibold, 2004a). This study extends that project by considering communicative *outcomes* associated with various dimensions of temporality. Below, the theoretical framework within which this investigation is anchored is described and situated vis-à-vis broader discussions concerning organizational temporality. Following this discussion, other research supporting the three outcome measures chosen for examination is reviewed, the methods used in the present study are explained, the findings are reported, and their implications are discussed.

A Meso Level Model of Organizational Temporality

Ancona, Okhuysen, and Perlow (2001) offer an integrative framework designed to provide a common set of terms and points of reference for the developing area of work time scholarship. They describe three interrelated categories of temporal constructs—*conceptions of time*, *mapping activities to time*, and *actors relating to time*—that allow researchers to simultaneously clarify the focus of a given analysis as well as to consider multiple aspects and interrelationships concerning said construct(s).

They recommend that when researchers use a term, the category (from among these three) be specified in order to set the context of the conversation. Additionally, because “our understanding of a variable in one category affects and is affected by variables in the other two categories,” investigations should be described in terms of each of the three categories, highlighting the interrelationships (p. 521). The simultaneous clarity and insight this offers should enable more fruitful conversations with greater synergistic potential. In keeping with this call, below a general overview of a meso level model of organizational temporality (Ballard & Seibold, 2003) is provided and its theoretical commitments are described in terms of these categories and their interrelationships, while distinguishing its unique communicative focus.

Conceptions of Time

Time is both multidimensional and multiplicitous. Hernadi (1992) observes that, “As social role-players, natural organisms and personal selves we always exist at the intersections of those *intersubjective*, *objective*, and *subjective* life times through which each of us participates in a variety of world times” [italics added] (1992, p. 150–151). Intersubjective time is social—or shared—and, as such, is constituted through interaction among members of a given group or culture. Given the historical and geographic specificity that serve as the boundary conditions of any organization, this label is most descriptive of the work in this paper. However, the influence of unique individual-level constraints (see Figure 1) that may lead to subjective constructions of time is acknowledged as well. Finally, there are objective pacers in the environment (Ancona & Chong, 1996; McGrath & Kelly, 1986), such as the workweek, fiscal year, project deadlines, and product life cycles that lead to social entrainment processes—where members’ intersubjective and subjective “times” become captured by and set to oscillate in tune with the rhythm of these objective “times.” Thus, here time is taken to mean shared experiences of time (intersubjective sense), personal conceptions of time (subjective sense), as well as institutionally driven, formal temporal parameters on members’ work processes measured in clock time (objective sense).

In brief, the theoretical framework undergirding the present investigation addresses objective, subjective, and intersubjective constructions of time to offer an integrative perspective on the role of cultural, environmental, organizational, group, and individual level influences in shaping organizational members’ temporal experience. It identifies macroorganizational structures (which include dominant cultural patterns, environmental characteristics, industry norms, occupational norms, and organizational culture) and microorganizational structures (including individual characteristics such as personal influences, work-home conflicts, personality, and social identity) that enable and constrain members’ actions and interactions in the organizational context. It focuses, however, on members’ intersubjective experience of time, partially mediated through group-level interaction surrounding meso organizational structures such as coordination methods, feedback cycles, and workplace technologies “in use”—which shape and are shaped by members’ day-to-day routines (Barley, 1988; Dubinskas, 1988a; Lawrence & Lorsch, 1967; Orlikowski, 2000; Thompson, 1967).

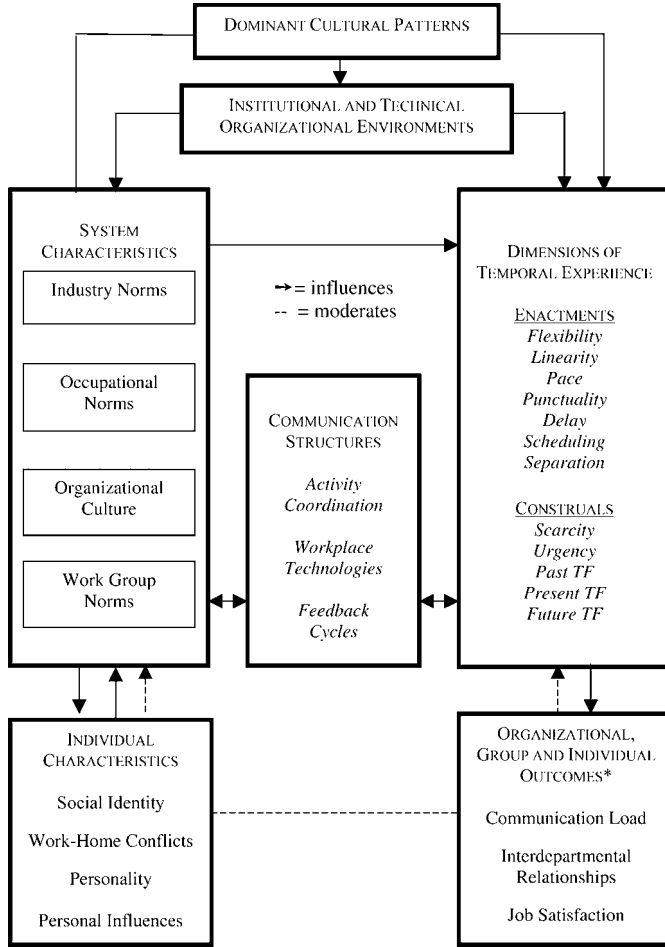


Figure 1 Meso Level Model of Organizational Temporality. This portion represents a proposed addition to Ballard & Seibold (2003), and is the focus of the present investigation.

Further, this theoretical model assumes a mutually constitutive relationship between time and communication. Social constructions of time exist through persons’ coordination and interaction with others and, via social entrainment processes, persons’ interaction and coordinative efforts shape their experience of time. This process of entrainment reflects how well (or how poorly) multiple activity maps—objective, subjective, and intersubjective—mesh, or interact, with each other. These activity maps are described in more detail below.

Mapping Activities to Time

Clarifying the *conceptions* of time under investigation helps to inform the ways in which members’ *map activities to time*. As Ancona et al. (2001) describe, “Many variables in this category involve an explicit and deliberate creation of order—an

engineering of the activities on the continuum” (p. 515). Given the relative focus on intersubjective, subjective, and objective conceptions, the larger framework extended here is concerned primarily with shared maps (common among a specific group or unit—created both as an outcome of and guideline for interaction), but it also accounts for personal maps (constrained by individual factors, such as work-home conflicts, personality, etc.) and institutional maps (that reflect product life cycles, market forces, and a variety of other environmental factors). The entrainment of multiple activity maps can either represent a strategic advantage or a coordination problem: Sometimes they complement, and other times they conflict with, each other. In any case, a meso level model acknowledges the impact of multiple maps, at micro- and macrolevels, in organizational and team processes.

In the present framework, the ways in which organizational members’ map activities to time is reflected among various temporal *enactments* (Ballard & Seibold, 2003; 2004a, 2004b). Enactments refer to the way work group members “perform” time. These include *pace*, tempo or rate of activity (Levine, 1988); *flexibility*, the degree of rigidity in time structuring and task completion plans (Starkey, 1989); *linearity*, the degree to which tasks are completed one at a time (Graham, 1981); *punctuality*, the exacting nature of timing and deadlines (Schriber & Gutek, 1987); *delay*, working behind schedule—orthogonal with punctuality; *scheduling*, the extent to which the sequencing and duration of plans, activities, and events are formalized (Zerubavel, 1981); and *separation*, the degree to which extraneous factors are eliminated or engaged in the completion of a work task (Perlow, 1997).

The notion of enactment focuses attention on more than behavior—rather, enactments are both outcome and medium of interaction with the environment and, as such, highlight the ways in which temporality is communicatively constituted. As Weick (1979) describes, “the external environment literally bends around the enactments of people” (p. 130). Enactments impact and are impacted by the interaction of organizational members’ with a variety of environmental factors, including their colleagues, clients, family members as well as task timelines, project deadlines, and the like. Additionally, a Weickian perspective portends that enactments shape and are shaped by members’ perceptions of the environment. It is, therefore, no surprise that variables in the category of activity mapping—in this case, enactments of time—influence how *actors relate to time*, the category of temporal variables described next.

Actors Relating to Time

Temporal *construals* represent the way organizational members “interpret” or orient to time and are in Ancona et al.’s category of *actors relating to time*. Consistent with their conceptualization of the relationship between actors relating to time and mapping activities to time, the ways in which members map activities to time (at personal, shared, and institutional levels)—vis-à-vis their temporal enactments—impact and are impacted by organizational members’ construals of time, or their relationship to time. This includes construals of: *scarcity*, a focus on time as a limited and exhaustible resource (Karau & Kelly, 1992); *urgency*, a preoccupation with deadlines and task

completion (Waller, Conte, Gibson, & Carpenter, 2001); and *present and future time foci*—orthogonal dimensions characterized by intentions oriented toward immediate action or long-term planning, respectively (Bluedorn, 2002; Jones, 1988).

To construe something means “to interpret, give a meaning to, put a construction on (actions, things, or persons)” (Simpson, 2005). While perceptions are typically associated with personal, even neurological, processes, *construals* focus attention on the social process of deriving meaning and open up the possibility of shared interpretations as well. Within Ancona et al.’s temporal framework, the ways in which actors relate to time loops back to the first category, conceptions of time. Similarly, in the present model, temporal *construals* inform and are informed by intersubjective, subjective, and objective conceptions of time. As one example, the present investigation examines the ways in which objective time (i.e., communication load) is related to members’ temporal *construals* and enactments. This project is discussed below.

Communication-Related Organizational Outcomes

Although research abounds on organizational temporality, as reviewed above, there is a surprising dearth of literature empirically linking members’ experience of time with salient organizational outcomes and even less associated with communication outcomes. However, there are at least three communication constructs—*communication load*, *interdepartmental communication satisfaction*, and *job satisfaction*—whose relationship with various temporal issues warrants consideration based on extant theory and research. The first two constructs further the project’s continuing goal of linking time and communication. They also reflect somewhat objective and intersubjective issues, respectively. The last construct is a useful starting point in order to examine the subjective impact of work time on organizational members’ lives.

Communication Load

Communication load is “a measure of the extent to which, *in a given period of time*, an organization’s members perceive more quantity, complexity, and/or equivocality in the information than an individual desires, needs, or can handle in the process of communication” (Chung & Goldhaber, 1991, p. 8, italics added). As such, it represents a link between objective and subjective or intersubjective times. While communication load is fundamentally a time-related construct, no research has examined organizational members’ intersubjective experience of time and their reported communication load—although concerns about this relationship are implicit in the literature on time and organizations (Bluedorn & Denhardt, 1988; Golden & Figart, 2000; Perlow, 1997). McGrath and Kelly (1986), for example, analyzed the time-based challenges of organizing and highlight the problems that arise when organizational members have more work responsibilities than they can handle, and the related processing requirements. From a communication perspective, especially given the recursivity argument at the heart of the present framework, it is critical to understand how organizational members’ temporal enactments and *construals* relate to the communication demands they face.

Interdepartmental Communication

Communication between department members with noncomplementary experiences of time also has been found to be a significant challenge to the “socio-temporal order” of modern organizational life (Dubinskas, 1988a, 1988b; Zerubavel, 1981), including problems with coordination across departments (Zerubavel, 1979). These coordination and communication problems reflect a variety of shared activity maps all entrained to distinct institutional times. Rather than attributing these problems to external causes linked to their temporal environments, persons often assign differences to internal, dispositional causes that may negatively impact their satisfaction in such relationships. While these relational problems have been demonstrated in previous research (Dubinskas, 1988b), the broad range of temporal dimensions that may foster dissatisfaction with interdepartmental communication has not been examined. Relating this critical communication outcome with specific temporal enactments and construals helps to develop a fuller picture of the relationship between time and communication. It also addresses a prominent theme in work time scholarship (Ballard & Seibold, 2000; Bluedorn & Denhardt, 1988; Bluedorn, 2002; Dubinskas, 1988b; Hassard, 1996; Zerubavel, 1979).

Job Satisfaction

Ever since Roy’s (1960) classic study of “banana time” underscored how highly linear, slow-paced work negatively impacted members’ job satisfaction, satisfaction has at least implicitly been addressed in reference to members’ experience of time at work (Hochschild, 1997; McGrath & Kelly, 1986; Starkey, 1989; Thompson & Bunderson, 2001). While job satisfaction is not explicitly communicative, it is associated with open communication climates (Falcione, Sussman, & Herden, 1987), increased information flow (Roberts & O’Reilly, 1974, 1978), and as an outcome of healthy interaction patterns in organizations (Conrad, 1985) that also are linked to organizational temporality, including the time supervisors devote to communicating with subordinates (Downs, 1979), temporal requirements surrounding work flow coordination and communication (House & Rizzo, 1972), and the flexibility needed for participative decision making (Redding, 1972). The International Communication Association Organizational Communication Audit instrument (DeWine, 1994; Goldhaber & Rogers, 1979) also includes a series of questions (used in the present investigation) that assess members’ satisfaction with a number of general organizational outcomes. Given prevailing concerns about the impact of institutional times on personal times, inside and outside of the workplace, it is important to explore the job satisfaction associated with the enactment and construal of certain temporal dimensions (Fraser, 2001).

Based on the literature in this area, three research questions were posed for this study:

- RQ1: Are organizational members’ feelings of communication load associated with their experience of particular dimensions of time?
- RQ2: Are organizational members’ levels of job satisfaction associated with their experience of particular dimensions of time?

RQ3: Are organizational members' satisfaction with interdepartmental relationships associated with their experience of particular dimensions of time?

Method

Participants

The organizational site chosen for this study is the subcontractor of a medium-sized west coast university that coordinates and oversees all housing and residential services for its students and employees. It consists of five departments—*Business and Financial Services*, *Residential Operations*, *Campus Dining Services*, *Residential Life*, and *Apartment and Community Living*—ranging in size from moderate to large and each characterized by a unique work environment. The ethnic make-up of the 393 final participants was moderately diverse (42.6% Caucasian, 27.3% Latino, 10.1% Asian, 8.3% Multiracial, 6.2% African American, 1.3% Native American, 1% Arab, and 3.2% were of other descent). There were roughly equal numbers of men (52.4%) and women (47.3%), and about half were older than 30 (up to 70 years old), while the other half were in their twenties or younger. Respondents' length of tenure with the organization was a median of 4.8 years.

Instruments

Temporal dimensions

To assess organizational members' temporal construals and enactments, respondents were asked to rate a series of 57 words and phrases in terms of how strongly they agreed or disagreed with the phrases as related to the way they referred to time. The words and phrases were derived from descriptions of time, time views, and time use found in a variety of popular and scholarly literatures (Gerson, 2000; Gleick, 1999; Hall, 1983; Holder & McKinney, 1992; Meuser, Yarnold, & Bryant, 1987). Table 1 lists the items, their factor loadings, scale reliabilities, and instructions given to respondents. Confirmatory factor analytic procedures employing maximum likelihood estimation were used to arrive at an eleven-factor model that includes *Flexibility*, *Linearity*, *Pace*, *Present Time focus*, *Future Time focus*, *Punctuality*, *Precision*, *Scarcity*, *Scheduling*, *Separation*, and *Urgency*.¹ See Ballard and Seibold (2004a) for a full description of the scale development and validation procedures.

Communication load

Organizational members' communication load was measured using nine items from a scale developed by Chung and Goldhaber (1991). Their instrument included 18 questions, as each question has two parts: how things are and the way respondents wish they were. Only the first set of questions assessing how things *actually are* was included in this study.

Table 1 Temporal Experience Scale Dimensions Factor Loadings

Factor	Items	Factor loadings	Statistical significance	Mean	Standard deviation
<i>Urgency</i> [†] $\alpha = .85$	Pressing	.88	.001	3.85	1.50
	An emergency	.81	.001	2.76	1.61
	Urgent	.89	.001	3.41	1.43
	Running out	.88	.001	3.42	1.52
	“Down to the wire”	.91	.001	3.32	1.55
<i>Scarcity</i> [†] $\alpha = .85$	Inadequate	.85	.001	3.32	1.53
	Scarce	.90	.001	3.53	1.57
	Not enough	.87	.001	3.77	1.62
	Plentiful	.57	.001	3.00	1.48
	Abundant	.52	.001	2.94	1.40
	Limited	.81	.001	3.90	1.58
<i>Flexibility</i> [◇] $\alpha = .70$	Set in stone	.52	.001	2.98	1.37
	Rigid	.79	.001	2.84	1.35
	Fixed	.77	.001	3.27	1.34
	<i>Dynamic</i>	-.11	.06	4.02	1.50
	<i>Adaptable</i>	.05	.39	4.48	1.21
	Inflexible	.54	.001	2.59	1.30
<i>Separation</i> [◇] $\alpha = .52$	Interrupted	.51	.001	3.64	1.45
	Screening out distractions	.57	.001	3.11	1.32
	Separated from each other	.63	.001	3.09	1.36
	Divided up	.49	.001	3.97	1.23
	In “compartments”	.65	.001	3.15	1.28
	<i>Protected from interruptions</i>	.35*	.001	2.38	1.32
<i>Pace</i> [◇] $\alpha = .85$	<i>Slow-paced</i>	.39*	.001	2.65	1.45
	Fast-paced	.88	.001	4.03	1.41
	Hurried	.87	.001	3.62	1.35
	<i>Leisurely</i>	.41*	.001	2.97	1.46
	Rapid	.88	.001	3.84	1.42
	Quick	.78	.001	3.96	1.31
	Racing	.86	.001	3.14	1.43
<i>Precision</i> [◇]	<i>On time</i>	.26	.001	4.14	1.29
	Behind schedule	.76	.001	3.09	1.38
<i>Punctuality</i> $\alpha = .68$	Running late	.79	.001	3.14	1.29
	Delayed	.69	.001	3.07	1.32
<i>Delay</i> $\alpha = .75$	<i>Punctual</i>	.18	.001	4.01	1.30
	<i>Prompt</i>	-.01	.91	3.85	1.28
	<i>Tightly scheduled</i> [◇]	.02	.77	3.81	1.46

(Continued)

Table 1 Continued

Factor	Items	Factor loadings	Statistical significance	Mean	Standard deviation
$\alpha = .53$	<i>Accounted for</i>	.12	.04	4.20	1.29
	Unscheduled	.74	.001	3.03	1.35
	Unplanned	.77	.001	2.85	1.41
<i>Linearity</i> [◊]	Carried out "one thing at a time"	.52	.001	3.24	1.51
$\alpha = .65$	Structured	.85	.001	3.88	1.37
	Having a specific order	.85	.001	3.84	1.30
	<i>Juggling several things</i>	.20*	.001	4.44	1.49
	Carried out "step-by-step"	.79	.001	3.92	1.33
<i>Present time focus</i> [‡]	<i>Short-term expectations</i>	.60*	.001	3.75	1.27
$\alpha = .76$	What is "pressing"	.97	.001	4.19	1.25
	Unfolding developments	.91	.001	4.16	1.15
	The immediate consequences	.92	.001	4.15	1.20
	The here-and-now	.88	.001	4.17	1.19
	Presently developing issues	.94	.001	4.35	1.16
	What is urgent today	.94	.001	4.52	1.16
<i>Future time focus</i> [‡]	Future developments	.94	.001	4.34	1.20
	Long-term plans	.96	.001	4.04	1.40
$\alpha = .87$	Anticipated events	.95	.001	4.22	1.24
	Projected dates	.98	.001	4.35	1.26
	Long-term expectations	.98	.001	4.25	1.29
	Upcoming activities	.98	.001	4.59	1.17

*These items were dropped on the basis of reliability analyses. All items that were dropped are indicated in *italics*.

[†] = These items were preceded by the following statement: "In my particular line of work, we usually talk about time as . . ."

[◊] = These items were preceded by the following statement: "In my particular line of work, we usually talk about our actions or activities as . . ."

[‡] = These items were preceded by the following statement: "In my particular line of work, we usually discuss events that happen at work in terms of . . ."

Job satisfaction

Job satisfaction was assessed using the "Organizational Outcomes" subscale from the International Communication Association Audit (DeWine, 1994). Comprised of ten items, respondents were asked to indicate their satisfaction with a number of general job-related matters.

Interdepartmental communication satisfaction

An additional scale composed of five items was developed for this study and concerned working relationships among units.

Focus Group

A focus group was conducted to better understand the task and social environments of the respondents. The group consisted of one member from each of the five departments, at various levels of the organization, and with varying lengths of tenure. The meeting lasted approximately an hour. Respondents were asked to describe the nature of their work, the challenges and rewards of their jobs, and their experiences surrounding time. They also were invited to discuss other relevant aspects of their workplace. In the following weeks, members from all of their respective departments were surveyed as described below.

Questionnaire Administration

The instrument was pilot tested at a meeting of 21 employees. Based on informal feedback, one of the temporality items was changed from “insufficient” to “not enough” in order to be understood by more respondents. Later analyses showed no statistical differences between the pilot test group and the larger sample, so these 21 respondents were included in the final data set. The remaining data were collected in one of two ways. First, approximately 70% of the data were collected during regularly scheduled employee meetings for a variety of groups. Second, if a particular group did not hold regular employee meetings, then surveys were distributed through the immediate supervisor. This process continued until 393 members of the organization had returned completed surveys. Each variable was tested for grouping differences based on questionnaire administration. No differences across respondents were found. The final *N* represents 75% of those to whom questionnaires were distributed.

Results

Communication Load

The first research question asked whether organizational members’ reported communication load is associated with their experience of particular dimensions of time. The scale items were first submitted to factor analytic and reliability analyses. One factor was extracted through principal axis factoring. It was composed of all nine original items and had an Eigenvalue of 5.6, which accounted for 64.24% of the variance. The reliability coefficient of the scale was .93, without the removal of any items. Table 2 lists the scale items, their factor loadings, and communalities.

The relationship between communication load and members’ experience of time was explored using a hierarchical multiple regression. *Urgency* and *present time focus* dimensions were not included in the analysis due to multicollinearity problems (caused by their high correlations with *scarcity* and *future time focus*, respectively). The independent variables retained for use in the analysis included *income*—treated as a nuisance variable² and entered first to control for its effects—and *scarcity*,

Table 2 Communication Load Scale Items, Factor Loadings, and Communalities (h^2)

Items	Loadings	h^2
Sometimes, you may receive information that needs too many explanations in order for it to be useful to you. How often does this occur?	.83	.62
How often do you feel you generally have too many phone calls, meetings, memos, letters, face-to-face conversations, etc. in your department?	.79	.43
How often does your communicating with others involve too many decisions?	.78	.59
How often do you receive information that requires you to make too many decisions?	.77	.60
How often do you receive more information than you can process?	.77	.70
Sometimes, you may have more discussion than you wish to about the confusing or ambiguous information. How often does this occur?	.76	.61
How often do you feel you have to send more information than you wish to?	.74	.53
Sometimes, the information you need to explain to others is confusing, or ambiguous, in nature. How often is the information you explain ambiguous?	.73	.57
How often do you receive more information than you need in order to do your job effectively?	.66	.55

Eigenvalue = 5.6 (64.24% of variance).

Instructions—*In the following questions the word “information” refers to communication or messages you receive through face-to-face conversation, meetings, telephone, memos, letters, or other channels. It includes reports, answers, requests, commands, and other directives.*

flexibility, pace, delay, scheduling, separation, punctuality, linearity, and future time focus—the focal independent variables, entered together in one block since none held a stronger theoretical rationale for earlier inclusion than the others.

Income was entered at step 1. Results ($R^2 = .12$, $F_{inc}(1, 393) = 54.01$, $p < .001$) indicated that persons at higher income levels report high levels of communication load. At step 2, *scarcity, flexibility, pace, delay, scheduling, separation, punctuality, linearity, and future time focus* were entered together ($R^2 = .33$, $F_{inc}(10, 383) = 11.98$, $p < .000$). Table 3 displays the unstandardized regression coefficients (B), the standardized regression coefficients (β), the semipartial correlations (sr^2), and R , R^2 , and adjusted R^2 . Findings suggest that organizational members who experience their time as *delayed* are also more likely to also experience higher communication load. Additionally, a high *future time focus* and greater *flexibility* in members' schedules are associated with increased feelings of communication load.

Table 3 Hierarchical Multiple Regression Assessing Relationship Between Experience of Time and Communication Load

Independent variables	<i>B</i>	β	<i>sr</i> ² incremental
Income	.233	.186	.12
Scarcity	.173	.106	
Flexibility	.229	.166	
Pace	.192	.152	
Delay	.281	.223	
Scheduling	3.394E-02	.028	
Separation	-.106	-.073	
Punctuality	-.172	-.127	
Linearity	-.203	-.144	
Future	.262	.189	.21

$R^2 = .33$.

Adjusted $R^2 = .31$.

$R = .58$.

Job Satisfaction

The second research question asked whether organizational members' feelings of job satisfaction are associated with their experience of particular dimensions of time. The items were first submitted to factor analytic and reliability analyses. One factor was extracted through principal axis factoring. It was composed of all ten original items and had an Eigenvalue of 6.027, which accounted for 60.27% of the variance. The reliability coefficient of the scale was .93, without the removal of any items. Table 4 lists the scale items, their factor loadings, and communalities.

The relationship between general job satisfaction and members' experience of time was also explored using a hierarchical multiple regression. The independent variables retained for use in the analysis included *income*—controlled for in the first block as a nuisance variable³—and *scarcity*, *flexibility*, *pace*, *delay*, *scheduling*, *separation*, *punctuality*, *linearity*, and *future time focus*—the focal independent variables, entered together in the second block as before.

Income was entered at step 1. Results indicated a positive relationship between income and job satisfaction ($R^2 = .04$, $F_{inc}(1, 393) = 16.31$, $p < .001$). At step 2, the temporal dimensions were entered together ($R^2 = .34$, $F_{inc}(10, 383) = 17.04$, $p < .000$). Results summarized in Table 5 show that a high *future time focus* is associated with greater job satisfaction. Persons who perceive their task completion and activities as *punctual* are also more satisfied. Finally, individuals who maintain a higher *pace* are likely to have lower levels of satisfaction.

Interdepartmental Communication Satisfaction

The third research question asked if organizational members' level of satisfaction with interdepartmental communication was associated with their experience of particular

Table 4 Job Satisfaction Scale Items, Factor Loadings, and Communalities (h^2)

Items	Loadings	h^2
The extent to which I am satisfied with my job	.84	.56
Satisfaction with my opportunity to “make a difference” –to contribute to the overall success of my organization	.77	.45
Satisfaction with my organization’s system for recognizing and rewarding outstanding performance	.76	.46
Satisfaction with my organization’s concern for its member’s well being	.76	.59
Satisfaction with my organization’s overall communicative efforts	.76	.56
Satisfaction with working in my organization	.75	.70
Satisfaction with my organization, as compared to other such organizations	.75	.58
Satisfaction with my organization’s overall efficiency of operation	.74	.54
Satisfaction with my organization’s product or service	.68	.58
My organization’s achievement of its goals and objectives	.67	.57

Eigenvalue = 6.027 (60.27% of variance).

Instructions—*One of the most important outcomes of working in an organization is the satisfaction one gets or fails to receive through working there. Such satisfaction can relate to the job, the people you work with, or the organization as a whole. Please mark your response below to indicate the extent to which you are satisfied with:*

dimensions of time. The scale items were first submitted to factor analytic and reliability analyses. One factor was extracted through principal axis factoring. It was composed of all five original items and had an Eigenvalue of 3.361, which accounted for 67.23% of

Table 5 Hierarchical Multiple Regression Assessing Relationship Between Experience of Time and Job Satisfaction

Independent variables	B	β	sr^2 incremental
Income	.128	.177	.04
Scarcity	-3.691E-02	-.039	
Flexibility	-4.137E-02	-.052	
Pace	-.132	-.180	
Delay	-8.621E-02	-.118	
Scheduling	1.273E-02	.018	
Separation	-5.188E-02	-.062	
Punctuality	.137	.175	
Linearity	.107	.131	
Future	.286	.356	.30

$R^2 = .34$.

Adjusted $R^2 = .32$.

$R = .58$.

Table 6 Interdepartmental Communication Satisfaction Scale Items, Factor Loadings, and Communalities (h^2)

Items	Loadings	h^2
Satisfaction with the extent to which departments work together effectively to meet the organization's goals	.86	.61
Satisfaction with quality of communication between departments at Housing and Residential Services	.78	.49
Satisfaction with the extent to which my department is supported by others in the organization in carrying out our work	.78	.50
Satisfaction with the extent to which other departments know and understand the challenges faced by my department	.71	.75
Satisfaction with quality of communication within my department at Housing and Residential Services	.70	.61

Eigenvalue = 3.36 (67.23% of variance).

Instructions—Please mark your response below to indicate the extent to which you are satisfied with.

the variance. The reliability coefficient of the scale was .88, without the removal of any items. Table 6 lists the scale items, their factor loadings, and communalities.

The relationship between organizational members' experience of time and their satisfaction with communication efforts among departments was explored using a standard multiple regression. There was no theoretical or empirical warrant to include income or other demographic variables as nuisance variables. Therefore, the same temporal dimensions—*scarcity*, *flexibility*, *pace*, *delay*, *scheduling*, *separation*, *punctuality*, *linearity*, and *future time focus*—served as independent variables. They were entered together since none held a stronger theoretical rationale for earlier inclusion than the others ($R^2 = .20$, $F_{inc}(10, 384) = 9.38$, $p < .000$). As indicated in Table 7, organizational members who are more *linear* in their task completion, and those with a high *future time focus*, tend to be more satisfied with interdepartmental communication. In contrast, persons who experience time as *delayed*, or behind schedule, report being less satisfied with communication between departments.

Discussion

Communication Load

Results indicated that organizational members who experience their time as more *delayed*, more *flexible*, and hold a higher *future time focus* also reported higher levels of communication load. The relationship between *delay* and communication load is suggestive. Communication load involves having more information than one can process in a given period of time, and it leads to an inability to complete important tasks (Farace, Monge, & Russell, 1977). This inability to successfully complete tasks may result in feelings of running “behind schedule.” As work group members are required to

Table 7 Standard Multiple Regression Assessing Relationship Between Experience of Time and Interdepartmental Relationships

Independent variables	B	β
Scarcity	-5.590E-02	-.054
Flexibility	-4.266E-02	-.049
Pace	-7.655E-02	-.083
Delay	-.115	-.144
Scheduling	.116	.135
Separation	-6.124E-02	-.077
Punctuality	3.296E-02	.043
Linearity	.185	.208
Future	.174	.198

$R^2 = .20.$

Adjusted $R^2 = .18.$

$R = .44.$

process larger and larger amounts of information, especially if this poses fundamental challenges to their processing capabilities, it becomes increasingly difficult to complete projects in a timely fashion. While a culture of speed exists in modern organizations, and has continued to increase in recent years (Breen, 2000; Gerson, 2000; Gleick, 1999; Kirsner, 2000; Lee & Liebenau, 2000), there are human limitations to speed. Ultimately, the inability to complete tasks can lead to lower performance for the persons overloaded and their coworkers (Perlow, 1999). Of course, given the correlational nature of this research and the inability to ascertain causality, members experiencing temporal delay may also subsequently experience communication overload (whereas they might not feel overload were they running on schedule and able to handle information processing demands).

The relationship between communication load and *flexibility* also is consistent with other research. Research on “telework” has demonstrated that the flexibility characterizing telecommuting and other new work practices is actually associated with working longer hours and feelings of greater work quantity than their counterparts working 9 to 5 in the office (Golden & Figart, 2000). The lack of strict demarcations between work and home life lead to a blurring of the lines in these cases. During the focus group in this investigation, one director commented that she worked “24 hours a day/7 days a week,” and how this flexible schedule created more stress than she anticipated. In contrast, the representative from another unit who had worked in a similarly flexible position for several years responded that she had learned to “set boundaries” about when she would work and when she would not. This implies that the advantages of flextime and flexplace work practices can be realized through the proper training and preparation of new organizational members in those positions, which also may help to mitigate some of the communication load these members experience.

The association between *future time focus* and feelings of communication load may be due to the fact that positions requiring a greater focus on future activities and events are those in which persons have a great deal of information to process. For instance, in order to properly anticipate future needs, opportunities, and threats, managers and others who carry out the planning function (Fayol, 1949) must consider huge amounts of data and information as part of their sensemaking processes (Weick, 1995). This may illustrate a recursive process where the planning function (of the *future time focus*) requires that persons process a lot of diverse information at various points in time, the successive ordering of which, in turn, leads to a focus on events in the future.

Job Satisfaction

Findings revealed that a *future time focus* and higher levels of *punctuality* were associated with greater job satisfaction, while a higher work *pace* was associated with lower levels of satisfaction. The relationship between a *future time focus* and general job satisfaction supports human relations notions of the intrinsic value organizational members receive through engaging meaningful work (McGregor, 1960). When organizational members have an understanding of their work as part of a larger, long-term picture, they are more likely to be satisfied with their work.

The positive relationship between *punctuality* and job satisfaction makes sense for the same reasons that *delay* was positively associated with communication load. Organizational members who are able to successfully meet job demands are likely to be more satisfied (in contrast to the communication load felt due to not being able to meet demands). This is consistent with human relations findings on the relationship between satisfaction and performance (Roethlisberger & Dickson, 1939).

The lower satisfaction associated with increased work *pace* points to some challenges of modern organizing, as described earlier regarding the relationship between *delay* and communication load. If persons are unable to keep up with the pace of their work environment, satisfaction may decline due to decreased feelings of self-efficacy. In her study of time in the work and life of top managers, Sabelis (2002) found that:

... the picture emerges of people who have worked their way up into a desired position, but now—"being there"—realise that they have more or less spiraled into a job where there is some personal power, but not, by far, the power and autonomy they had imagined. ... The flywheels of the economical system seem to have a lot of power of their own and leave them sitting at their desks or running around to meetings as a way of being very busy. ... Very often the pace of work is described as imposed upon them by external factors, which force managers to speed up their rhythms as well as the rhythms of the work processes they are supposed to steer in their organizations (pp. 116–117).

This response to external pacers, perceived as uncontrollable entraining forces, reflects feelings of vulnerability. In response, the managers described a diverse repertoire of strategies acquired expressly for the purpose of avoiding the burnout typically

associated with an accelerated pace of work. These strategies are designed to maintain or to regain a sense of control and personal effectiveness—the only proven benefit of time management tools (Macan, 1994). Given the increasing pace of work, further exploration into how this relationship is mediated represents an important area of research. Are there times when an invigorating, high-paced work environment can lead to greater satisfaction? If so, under what conditions?

Interdepartmental Communication

Persons who experienced time as more *delayed* were less satisfied with interdepartmental communication. In contrast, higher levels of satisfaction with communication between departments were found among organizational members who reported enacting more *linearity* in their tasks and having a greater *future time focus*. The negative relationship between interdepartmental relationships and the experience of work as *delayed* is consistent with Dubinskas's (1988b) work concerning the negative communication cycles that occur between interdependent departments when their own deadlines are not met. In his ethnography, engineers resented management for pressing them regarding a deadline, while management resented that the engineers did not have a product to bring to market in a timely fashion. This finding is critical for departments that depend on each other for long-term, highly variable projects. Decreased quality of communication is not likely to positively assist the outcome (that is, successful task completion) desired by all parties. The role of *linearity* and a *future time focus* in contributing to higher communication satisfaction across departments is unclear either from existing literature or data collected during this study. Perhaps communicating with other departmental members about long-term goals and plans leads to more satisfying relationships and communication patterns. Or a more linear task-completion pattern may reflect less dynamic coordinative processes as previous research has suggested (Ballard & Seibold, 2004b), thus decreasing the potential for interdepartmental conflict. Future research should investigate the links between these dimensions and interdepartmental communication patterns.

Conclusion

Taken together several findings point to some practical implications for improving work life quality and suggest potential directions for future research. The first concerns the use of flexible work arrangements. Despite all of the seeming advantages of flexibility, it is also likely to be associated with higher levels of communication load. This is problematic due to the association between communication load and descriptions of one's work as delayed, which also negatively impacts collaborative relationships. While the relationship is modest (i.e., a correlation of .27), it still merits consideration. Given the consistency of the finding that flexible work environments are associated with overload of some type—here, reported as the inability to respond to information in a timely fashion, elsewhere reported in longer working hours (Hylmö & Buzzanell, 2003) and feelings of being overwhelmed (Golden & Figart,

2000)—perhaps it would benefit organizations and their members to consider more and less successful models of this practice. For example, training departments could offer advice and support on how to avoid common pitfalls associated with increased flexibility.

In addition to better management of flexible work arrangements as a way of improving work life quality and benefits for both employee and employer, an increased focus and training on successful project management may also yield similar advantages. While it was found to be associated with increased job satisfaction, a future time focus is similarly associated with higher levels of communication load. Classes and instruction on successful project management strategies that deal directly with the challenges inherent in planning and executing long-term projects may mitigate this association. The positive relationship between punctuality and job satisfaction is a reflection of the importance of timeliness and successful task coping strategies to work life quality. Given the increasing focus on flexibility and job enrichment as a way of improving working conditions, these are important issues to address in order to avoid sabotaging potentially valuable practices and opportunities.

In contrast to findings about future temporal focus, organizational members who reported a faster-paced work environment were less satisfied than others. This is consistent with Fraser's (2001) findings about the white-collar sweatshop that characterizes many contemporary organizations. As she reports, companies that slow the pace of work through better paid-time-off policies report greater success in their retention efforts. In a national study, *Overwork in America*, based on telephone interviews with a representative sample of 1,003 wage and salaried employees in the United States workforce, Galinsky et al. (2005) found "the very skills that are fundamental to succeeding in this global economy—specifically, moving quickly from task to task with little time for recovery in between, facing many interruptions, and working outside normal work hours, including vacations—can be useful but also can become detrimental" (p. 1). Consistent with decreased job satisfaction, outcomes of overwork include more mistakes, anger at employers, resentment with coworkers, higher stress levels, clinical depression, poorer health, and personal neglect. Galinsky and colleagues suggest that competitive sports provides a useful analogy to the limits of pace in that periods of intense training and work must be accompanied by periods of downtime, or recovery, as well. In order to address the challenges of fast-paced work environments more systematically, they propose that work teams be assembled to draft plans to improve a variety of areas of overwork and to include strict accountability standards for managers and team members.

Investigations of the breadth and depth of relationships between communication and human temporality are long overdue (Bruneau, 1974, 1977, 1979). Through this project, the breadth and depth of relationships among time and communication has been extended, and generalizable temporal constructs (Ancona et al., 2001) have been related to specific communication issues and concerns. Future communication research should continue to develop these relationships and constructs in such a way that promotes dialogue among work time researchers across a variety of disciplines—in part, through employing a shared language and, also, through demonstrating the relevance of

communication scholarship in the broader conversation. Given the centrality of time in shaping the substance and quality of a variety of communication relationships as shown here and elsewhere (Gleick, 1999; Sorokin & Merton, 1990), chronemics research begs serious consideration. The current report is one part of the larger project identifying critical aspects of this relationship in the context of organizational communication.

Notes

- [1] Maximum likelihood estimation was employed to estimate all models. The independence model that tests the hypothesis that all variables are uncorrelated was easily rejected, χ^2 (1711, $N = 395$) = 59782.60, $p < .01$. The hypothesized model was tested next and it was not supported χ^2 (1553, $N = 395$) = 6117.06, $p < .01$, Tucker Lewis index (TLI) = .91, RMSEA = .09, SRMR = .29. However, a chi-square difference test indicated a significant improvement in fit between the independence model and the hypothesized model. Post hoc modifications were performed to develop a better fitting model. Ultimately, an *eleven-factor model* that includes *Flexibility, Linearity, Pace, Present Time Perspective, Future Time Perspective, Punctuality, Precision, Scarcity, Scheduling, Separation, and Urgency* was tested for fit. The revised model showed marked improvement. The independence model that tests the hypothesis that all variables are uncorrelated was easily rejectable, χ^2 (1225, $N = 395$) = 50615.80, $p < .01$. The hypothesized model was tested next and support was found for it χ^2 (1070, $N = 395$) = 2509.49, $p < .01$, Tucker Lewis index (TLI) = .97, RMSEA = .06, SRMR = .09. While the chi-square test was significant, indicating a lack of model fit, it was just under two and a half times the model degrees of freedom. Additionally, the relative measures evidenced model fit. A chi-square difference test indicated a significant improvement in fit between the independence model and the hypothesized model. Finally, because the eleven dimensions measure different categories of experience (enactments and construals), at this point we checked for empirical differences among these dimensions using a second-order factor analysis model χ^2 (1113, $N = 395$) = 2747.47, $p < .01$. While the TLI indicated an adequate fit (.95), both the RMSEA and SRMR values (.08 and .13, respectively) suggested that the first-order model was a better empirical representation of the data. A chi-square difference test between the first-order and second-order confirmed that the first-order model was a better fit at $p < .001$.
- [2] In addition to various dimensions of members' temporal experience, their *income level* was also positively associated with feelings of communication load. Classical approaches to assigning income standards are determined by one's time span of discretion, which impacts the amount and complexity of information that organizational members must process over an extended time frame (Jaques, 1982). Therefore, this links income to communication load and also provides theoretical support for the finding that a *future time focus* is also associated with higher levels of communication load.
- [3] In addition to various dimensions of members' temporal experience, their *income level* was also positively associated with feelings of job satisfaction. This supports classical approaches of increasing income in order to impact job satisfaction (Taylor, 1911).WW

References

- Albarran, A. B. & Arrese, A. (2003). *Time and media markets*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Ancona, D. & Chong, C. (1996). Entrainment: Pace, cycle and rhythm in organizational behavior. In B. M. Staw & L. L. Cummings (Eds.), *Research in Organizational Behaviour*, Volume 18 (pp. 251–284). Greenwich, CT: JAI Press.

- Ancona, D. G., Okhuysen, G. A., & Perlow, L. A. (2001). Taking time to integrate temporal research. *Academy of Management Review*, 28, 512–529.
- Ballard, D. I. & Seibold, D. R. (2000). Time orientation and temporal variation across work groups: Implications for group and organizational communication. *Western Journal of Communication*, 64, 218–242.
- Ballard, D. I. & Seibold, D. R. (2003). Communicating and organizing in time: A meso-level model of organizational temporality. *Management Communication Quarterly*, 16, 380–415.
- Ballard, D. I. & Seibold, D. R. (2004a). Organizational members' communication and temporal experience: Scale development and validation. *Communication Research*, 31, 135–172.
- Ballard, D. I. & Seibold, D. R. (2004b). Communication-related organizational structures and work group members' temporal experience: The effects of interdependence, type of technology, and feedback cycle on members' views and enactments of time. *Communication Monographs*, 71, 1–27.
- Barley, S. R. (1988). On technology, time, and social order: Technically induced change in the temporal organization of radiological work. In F. Dubinskas (Ed.), *Making Time: Ethnographies of High-technology Organizations* (pp.123–169).
- Bennett, J. B. (2000). *Time and intimacy: A new science of personal relationships*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Bluedorn, A. C. & Denhardt, R. B. (1988). Time and organizations. *Journal of Management*, 14, 299–320.
- Bluedorn, A. C. (2002). *The human organization of time: Temporal realities and experience*. Stanford, CA: Stanford Business Books.
- Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge, UK: Cambridge University Press.
- Breen, B. (2000, May). What are we after? We are literally trying to stop time. *Fast Company*, 34, 178–193.
- Bruneau, T. (1974). Time and nonverbal communication. *Journal of Popular Culture*, 8, 658–666.
- Bruneau, T. (1977). Chronemics: The study of time in human interaction (with a glossary of chronemic terminology). *Communication, Journal of the Communication Association of the Pacific*, 6, 1–30.
- Bruneau, T. (1979). The time dimension in intercultural communication. In D. Nimmo (Ed.), *Communication yearbook 3* (pp. 423–433). New Brunswick, NJ: Transaction Books.
- Bruneau, T. (1996). Subjective time, social interaction, and personal identity. In H. B. Mokros (Ed.), *Interaction & identity: Information and behavior, Volume 5* (pp. 97–115). New Brunswick, NJ: Transaction Publishers.
- Chung, C. J. & Goldhaber, G. (1991, May). *Measuring communication load: A three-dimensional instrument*. Paper presented at the meeting of the International Communication Association, Chicago.
- Conrad, C. (1985). *Strategic organizational communication: Cultures, situations, and adaptation*. New York: Holt, Rinehart, & Winston.
- DeWine, S. (1994). International communication association audit. In R. B. Rubin, P. Palmgreen, & H. E. Sypher (Eds.), *Communication research measures: A sourcebook* (pp. 193–205). New York: Guilford Press.
- Downs, C. (1979). The relationship between communication and job satisfaction. In R. Huseman, C. Logue, & D. Freshley (Eds.), *Readings in interpersonal and organizational communication* (pp. 363–376). Boston: Allyn & Bacon.
- Dubinskas, F. (1988a). Cultural construction: The many faces of time. In F. Dubinskas (Ed.), *Making time: Ethnographies of high-technology organizations* (pp. 3–38). Philadelphia: Temple University Press.
- Dubinskas, F. (1988b). Janus organizations: Scientists and managers in genetic engineering firms. In F. Dubinskas (Ed.), *Making time: Ethnographies of high-technology organizations* (pp. 170–232). Philadelphia: Temple University Press.

- Falcione, R. L., Sussman, L., & Herden, R. P. (1987). Communication climate in organizations. In F. M. Jablin, L. L. Putnam, K. H. Roberts, & L. W. Porter (Eds.), *Handbook of organizational communication: An interdisciplinary perspective* (pp. 195–227). Newbury Park, CA: Sage.
- Farace, R. V., Monge, P. R., & Russell, H. M. (1977). *Communicating and organizing*. Reading, MA: Addison-Wesley Publishing.
- Fayol, H. (1949). *General and industrial management* (C. Storrs, Trans.). London: Pitman.
- Fraser, J. A. (2001). *White-collar sweatshop: The deterioration of work and its rewards in corporate America*. New York: W. W. Norton & Company.
- Galinsky, E., Bond, J. T., Kim, S. S., Backon, L., Brownfield, E., & Sakai, K. (2005). Families and Work Institute. *Overwork in America: When the way we work becomes too much: Executive Summary*. Retrieved April 2, 2005, from <http://familiesandwork.org/summary/overwork2005.pdf>
- Gerson, M. (2000, August 8). Who has the time to be bored? Sadly, not enough of us. *USA Today*, p. 15A.
- Gleick, J. (1999). *Faster: The acceleration of just about everything*. New York: Pantheon Books.
- Golden, L. & Figart, D. M. (2000). *Working time: International trends, theory, and policy perspectives*. New York: Routledge.
- Goldhaber, G. M. & Rogers, D. P. (1979). *Auditing organizational communication systems: The ICA communication audit*. Dubuque, IA: Kendall-Hunt.
- Graham, R. J. (1981). The role of perception of time in consumer research. *Journal of Consumer Research*, 7, 335–342.
- Hall, E. T. (1983). *The dance of life*. New York: Doubleday.
- Hassard, J. (1996). Images of time in work and organization. In S. R. Clegg, C. Hardy, & W. R. Nord (Eds.), *Handbook of Organization Studies* (pp. 581–598). Thousand Oaks, CA: Sage.
- Hernadi, P. (1992). Objective, subjective, intersubjective times: Guest editor's introduction. *Time & Society*, 1, 147–158.
- Hochschild, A. R. (1997). *The time bind: When work becomes home and home becomes work*. New York: Henry Holt and Company.
- Holder, R. T. & McKinney, R. N. (1992). Time in the new workplace. *Journal for Quality & Participation*, 15, 30–38.
- Holmer-Nadesan, M. (1997). Essai: Dislocating (instrumental) organizational time. *Organizational Studies*, 18(3), 481–510.
- House, R. J. & Rizzo, J. R. (1972). Toward the measurement of organizational practices: Scale development and validation. *Journal of Applied Psychology*, 56, 388–396.
- Hylmö, A. & Buzzanell, P. M. (2003). The phenomenon of telecommuting and changing organizations: An organizational culture examination. *Communication Monographs*, 70, 329–356.
- Jaques, E. (1982). *The form of time*. London: Heinemann.
- Jones, J. M. (1988). Cultural difference in temporal perspectives: Instrumental and expressive behaviors in time. In J. E. McGrath (Ed.), *The social psychology of time: New perspectives* (pp. 21–38). Newbury Park, CA: Sage.
- Karau, S. J. & Kelly, J. R. (1992). The effects of time scarcity and time abundance on group performance quality and interaction processes. *Journal of Experimental Social Psychology*, 28, 542–571.
- Kirby, E. L. & Krone, K. J. (2002). “The policy exists but you can't really use it”: Communication and the structuration of work-family policies. *Journal of Applied Communication Research*, 30, 50–77.
- Kirsner, S. (2000, May). Faster company. *Fast Company*, 162–177.
- Kuhn, T. (2000, June). *The “demented work ethic”: Representing and rationalizing time, identity, and locale during organizational change*. Paper presented at the Annual meeting of the International Communication Association, Acapulco, MX.
- Lawrence, P. R. & Lorsch, J. W. (1967). *Organization and environment: Managing differentiation and integration*. Boston: Harvard University Press.

- Lee, H. & Liebenau, J. (2000). Time and the internet at the turn of the millennium. *Time & Society*, 9, 43–56.
- Lee, H. & Liebenau, J. (1999). Time in organizational studies: Towards a new research direction. *Organization Studies*, 20, 1035–1058.
- Levine, R. V. (1988). The pace of life across cultures. In J. E. McGrath (Ed.), *The social psychology of time: New perspectives* (pp. 39–60). Newbury Park, CA: Sage.
- Macan, T. H. (1994). Time management: Test of a process model. *Journal of Applied Psychology*, 79, 381–391.
- McCann, R. & Giles, H. (2002). Ageism in the workplace: A communication perspective. In T. D. Nelson (Ed.), *Ageism: Stereotyping and prejudice against older persons* (pp. 163–199). Cambridge, MA: MIT Press.
- McGrath, J. E. & Kelly, J. R. (1986). *Time and human interaction: Toward a social psychology of time*. New York: Guilford Press.
- McGregor, D. (1960). *The human side of enterprise*. New York: McGraw-Hill.
- McKerrow, R. (1999). Space and time in the postmodern polity. *Western Journal of Communication*, 63, 271–290.
- Meuser, K. T., Yarnold, P. R., & Bryant F. B. (1987). Type A behaviour and time urgency: Perception of time adjectives. *British Journal of Medical Psychology*, 60, 267–269.
- Nadesan, M. H. (1997). Gender and temporality in interpersonal systems. *Symbolic Interaction*, 20, 21–43.
- Orlikowski, W. J. (2002). Using technology and constituting structures: A practice lens for studying technology in organizations. *Organization Science*, 11, 404–428.
- Perlow, L. A. (1997). *Finding time: How corporations, individuals, and families can benefit from new work practices*. Ithaca, NY: Cornell University Press.
- Perlow, L. A. (1999). The time famine: Toward a sociology of work time. *Administrative Science Quarterly*, 44, 57–81.
- Peterson, C. C. (1996). The ticking of the social clock: Adults' beliefs about the timing of transition events. *International Journal of Aging and Human Development*, 42, 189–203.
- Redding, W. C. (1972). *Communication within the organization: An interpretive review of theory and research*. New York: Industrial Communication Council.
- Roberts, K. H. & O'Reilly, C. A. (1974). Failures in upward communication: Three possible culprits. *Academy of Management Journal*, 17, 205–215.
- Roberts, K. H. & O'Reilly, C. A. (1978). Organizations as communication structures—An empirical approach. *Human Communication Research*, 4, 283–293.
- Roethlisberger, F. J. & Dickson, W. J. (1939). *Management and the worker*. Cambridge, MA: Harvard University Press.
- Roy, D. F. (1960). Banana time: Job satisfaction and informal interaction. *Human Organization*, 18, 156–168.
- Sabelis, I. H. J. (2002). *Manager's times: A study of times in the work and life of top managers*. Amsterdam: Bee's Books.
- Schriber, J. B. & Gutek, B. A. (1987). Some time dimensions of work: The measurement of an underlying dimension of organizational culture. *Journal of Applied Psychology*, 72, 642–650.
- Simpson, J. et al. (Eds.). (2005). *OED Online*. Oxford: Oxford University Press.
- Sorokin, P. & Merton, R. (1990). Social time: A methodological and functional analysis. In J. Hassard (Ed.), *The sociology of time* (pp. 56–66). New York: St. Martin's Press.
- Starkey, K. (1989). Time and work: A psychological perspective. In P. Blyton, J. Hassard, S. Hill, & K. Starkey (Eds.), *Time, work, and organization* (pp. 57–78). New York: Routledge.
- Taylor, F. W. (1911). *Scientific management*. New York: Harper & Row.
- Thompson, J. A. & Bunderson, J. S. (2001). Work-nonwork conflict and the phenomenology of time: Beyond the balance metaphor. *Work and Occupations*, 28, 17–39.

- Waller, M. J., Conte, J. M., Gibson, C. B., & Carpenter, M. A. (2001). The effect of individual perceptions of deadlines on team performance. *Academy of Management Review*, 26, 586–600.
- Weick, K. E. (1979). *The social psychology of organizing* (2nd ed.). New York: McGraw-Hill.
- Weick, K. E. (1995). *Sensemaking in organizations*. Newbury Park, CA: Sage.
- Wolburg, J. M. (1999). Time: The silent cultural value in American television advertising. *Journalism & Mass Communication Quarterly*, 76(3), 419–432.
- Wolburg, J. M. (2001). Preserving the moment, commodifying time, and improving upon the past: Insights into the depiction of time in American advertising. *Journal of Communication*, 51, 696–719.
- Wolburg, J. M. & Taylor, R. E. (1998). Celebrate the moments of your life: An investigation of time as a cultural value in American television advertising. In J. B. Ford & E. D. Honeycutt, Jr. (Eds.), *Developments in marketing science: Vol. 21* (pp. 363–367). Norfolk, VA: Academy of Marketing Science.
- Zerubavel, E. (1979). *Patterns of time in hospital life*. Chicago: University of Chicago Press.
- Zerubavel, E. (1981). *Hidden rhythms: Schedules and calendars in social life*. Chicago: University of Chicago Press.