Time

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Issues of time and temporality are central to the study of organizational communication. Time is the very tool used to coordinate the work of groups, teams, communities, and organizations. Relatedly, temporality arises through and is reflected in the activities and relationships of organizational members to one another and to their work. Given the centrality of these issues to organizing, time and temporality are at the center of a rich, interdisciplinary organizational literature that includes scholars in the fields of communication, anthropology, management, psychology, sociology, and informatics, among others.

Ironically, because they are so deeply integrated into the work itself, issues of temporality are among the most hidden and understudied aspects of organizational life. While the turn of the century brought increased attention to temporal aspects of organizing – with special issues devoted to the topic by the *Academy of Management Journal*, *Academy of Management Review*, *Organizational Studies*, *Small Group Research*, *Work and Occupations*, and *Culture and Organization* journals – the communication discipline has been the least active in research and scholarship in this area. Research on time and temporality in our discipline is also referred to as *chronemics*, or the study of time as it is bound to human communication. It has most often been studied by scholars of nonverbal communication and computer-mediated communication but has been largely neglected by organizational communication scholars, with some notable exceptions.

Time versus temporality

Time in organizational life refers to the various symbolic, external markers – such as clocks, schedules, appointments, deadlines, and calendared meetings – that point toward work related activities or events. In contrast, organizational *temporality* refers to the inherent patterns that define a process, activity, or event and imbue it with meaning and relevance for organizational members. Basic aspects of organizing, such as team development, member socialization, and group process, as well as structural dynamics like virtual teams and teleworking, all reflect a concern with temporal processes.

In organizational members' lives and in the research that typifies this area of scholarship, issues of time versus temporality are bridged practically and theoretically. For example, the time related nature of employee scheduling, hours worked, and general workload can shape and be shaped by temporal aspects of work, such

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as employee burnout, organizational culture, and organizational identification. In organizational communication, Kuhn's (2006) research on long working hours, or a "demented work ethic," is an example of work that bridges these two constructs. Kuhn found that rather than this work ethic being the result of clear time based dictates by management, deeper temporal issues drove the numbers of hours worked. That is, how individuals allocated time in the workplace was the result of efforts to portray a particular organizational identity – a temporal construction marked by distinctive communication patterns associated with value to the company. Thus the work ethic was a temporal construction reflected in observable time based practices.

Research on temporality also necessarily reflects issues of time. For instance, in exploring team dynamics, group scholars Arrow et al. (2004) argue that to understand groups – in a work context or elsewhere – we must contend with the inherently temporal nature of group development. Time is pivotal to key aspects of development, such as how long a group has worked together, how long its various members have belonged to the organization in comparison to one other, their expectations for continued work together, how frequently each team member contributes in a given meeting or interaction, and how often they meet as a unit, to name a few.

Since temporal issues often concern time and time related issues often concern temporality, the words are frequently used interchangeably for stylistic reasons. Therefore, as a reader in the area, it is important to be aware of this difference while realizing that these issues are often so tightly interwoven as to sometimes be inseparable. In the remainder of the entry, we will be careful to point out whenever a particular research investigation is strictly limited to either time or temporality. Otherwise, we will use style considerations that support an economy of words.

The relationship between time and communication

Time and communication are mutually constituted. This is not only in the sense that temporality is a form of nonverbal communication, called chronemics, described earlier. It is also because the temporality of members' work is reflected through the pattern of members' interaction as well as in their symbolic representations of time, such as the use of clocks, deadlines, and appointments.

French sociologist Bourdieu argued (1977) that the human experience of time only comes into being through our interaction with others. For example, even without attention to clocks and formal timekeeping devices, organizational members notice temporal patterns, or time, based solely on their occurrence vis-à-vis communication episodes.

This draws our attention to the role of time in studying communication as a process. Social psychologists McGrath and Kelly (1992) describe five basic parameters of behavior measured in time that are relevant for group and organizational communication researchers – *frequency, duration, periodicity, sequence/order,* and *temporal location*. Relatedly, communication scholars Monge and Kalman (1996) identify three time based concepts – *sequentiality, simultaneity,* and *synchronicity* – needed

to study dynamic communication processes. Because processes are inherently temporal, sensitivity to time is crucial.

Germane to studying process, management scholars Zaheer, Albert, and Zaheer (1999) point out the need for attention to *time scale* in developing organizational theory. Time scale refers to a unit, or interval, of time that can be compared to other units. It contains the time allowed for or taken by a given process. Examples of varying time scales often referenced in organizational settings are daily, weekly, quarterly, or annual time intervals. A sales team may have distinct behaviors that facilitate their ability to meet daily versus quarterly goals. For this reason, if a manager closely observes a team member over the course of a quarterly earnings period versus a daily sales trip, the conclusions reached about how to achieve sales quotas may be starkly different. Thus, understanding the impact of time scale in any observations about organizational communication is critically important.

Social entrainment and objective, subjective, and intersubjective times

Following Bourdieu's (1977) observation and McGrath and Kelly's (1992) framework, Ballard and Seibold (2003) argue that organizational communication derives its meaning, in part, because of observations that it occurs at a particular frequency, at a specific point (or location) in time, for a given duration, exists sequentially in relation to other communication episodes within a defined span of time, and can be characterized by a special periodicity.

For example, in organizations everywhere, the pace, regularity, duration, and frequency of communication – from meetings to email – signal clearly when a deadline is approaching, the fiscal year is ending, or the day is almost over. Likewise, these same meetings and email requests are noticed or overlooked, celebrated or dreaded, and prioritized or avoided based upon their relationship to the fiscal year, the time of day, or their relationship to a deadline. Thus, our communication norms and practices are vitally important in signaling time, and our temporal experience is also important in shaping the communication patterns and practices of a given group. The importance of this chronemic, or interaction based, perspective on human temporality is that it allows organizational members, practitioners, and scholars to understand the bigger, relational, and structural context within which our temporal experience unfolds. One aspect of this context is captured in a theoretical perspective called *social entrainment*.

The concept of entrainment originated in the biological sciences as a way to describe the process by which one cyclic process becomes disrupted by, and set to oscillate in tune with, another process. Social scientists have used this term to describe how particular temporal patterns develop. The most extensive and heuristic theoretical treatments have come from McGrath and Kelly (1992), management scholars Ancona and Chong (1996), and management scholar Bluedorn (2002).

The entrainment perspective rests on five assumptions, each with particular implications for organizational communication. The first assumption is that much of human

behavior is temporal, or regulated by cyclical, oscillatory, and rhythmical processes. One such regulator in organizations, referenced earlier in this section, is the fiscal year. It is used to circumscribe when particular work should be completed, various reports must be filed, and vacations are allotted. At a much smaller time scale, another regulator is the diurnal sleep cycle that shapes the biological processes organizational members experience throughout the day. This includes common fluctuations in energy levels throughout the day that shape work output and performance as well as the need for adequate sleep, even when work deadlines or final exams loom large in members' minds. In other words, organizational work is not only enabled and constrained by *intersubjective times* – those times shared by members of a social group (in this case, an organization), like a fiscal year – but also by our *objective times* – those times determined by biological processes such as the need for sleep; furthermore, each of these times shapes and is shaped by our *subjective times* – those personal times that direct our rhythms, like the impending deadline or final exam that captures our attention and behavior (see Hernadi, 1992 for more on objective, subjective, and intersubjective times).

The second assumption of the entrainment perspective is that these behavioral rhythms are endogenous, or intrinsic, to systems. For instance, some companies date their fiscal year at the end of the calendar year (December 31) while others use the end of a particular quarter (March 31, June 30, or September 30). Universities across the globe have wide-ranging differences in their academic years, including the first and last day of classes, not to mention final exam and vacation schedules. These differences have implications for internal and external communication because they dictate the pace of work and the timing and flow of interaction. When we consider a smaller time scale than the fiscal year, such as the workday, we can see how the start and end time of a schedule directs the rhythm of interaction in particular ways. Among colocated organizational members, as the day comes to a close, meetings wrap up and individuals gather their personal belongings in much the same way that college professors can sense the end of a class period by the sound of zipping backpacks and closing laptops.

The third and fourth assumptions are closely interrelated and critical for the study of organizational communication processes: sets of internal rhythms become synchronized within each system, and when persons interact their internal rhythms can become entrained to one another. In our examples above, the system might be the work group, department, or university. When individual group members or students at a particular university interact through the course of carrying out their work, their internal rhythms can become entrained to one another. That is, they may adopt the same *phase* or *tempo*. Phase entrainment concerns the synchronization of cycles and tempo entrainment concerns the change and alignment of speed. For example, members of a university often share a remarkably different annual cycle than their family members or friends. When a student or professor references the "year," it may mean the academic year instead of the calendar year that nonacademics use to reckon their days and weeks. These intersubjective differences in time reflect the phase entrainment shared among other members of the university. As another example, the tempo of work in certain professions or in certain companies is very fast paced. Members of those groups and organizations may notice their tempo entrainment with each other when they find themselves interacting

with people who live and work at a slower pace. They may walk faster, talk faster, eat faster, and expect others to do the same.

Psychologist Levine (1997) observes the tempo entrainment that occurs across cultures around the world and across regions of the United States. The intersubjective aspects of time can lead to conflict within organizations because members of various departments experience unique phase and/or tempo entrainment associated with their different schedules or endogenous rhythms. This conflict arises, in part, due to unmet expectations as organizational members across various groups and departments interact with a complete lack of awareness that others operate within different intersubjective and subjective times. Hall (1959) famously called time the silent language precisely because it often shapes our interaction patterns outside of awareness.

The fifth assumption of social entrainment is that the internal rhythms of individuals and social groups can become collectively entrained, or synchronized, to powerful external pacers (called *zeitgebers*) altering the phase, periodicity, or magnitude of their endogenous rhythms. This is the power of organizational times, in the form of zeitgebers, such as the fiscal year, regular project deadlines, or daily and weekly schedules that drive the rhythm of our interaction and, in the process, shape our quality of life. In organizations, this rhythm creates a dominant temporal ordering that exists as a compelling coordination mechanism. It is the reason that, in some groups and cultures, deadlines and schedules come to take on the quality of objective pacers, no less than the sun and the moon. They can become reified, which occurs when a social construction (essentially a shared agreement) comes to hold some truth apart from the individuals who created it. This is the reason that sleep deprivation has been called a public health epidemic in the United States by the Centers for Disease Control and Prevention: as the number of cycles (this includes the phase and/or tempo entrainment of various organizational members, groups, departments, and even entire industries) captured by a dominant zeitgeber increases, it becomes inertial. Globalization has meant that industries around the world work at an increased pace and with decreased product cycles. The consequence has been that the anytime/anywhere organizational communication patterns, described as *timeless time* and *space of flows* by sociologist Castells (2000), put pressure on organizational members' subjective and intersubjective times to lead (and reshape) their objective times, such as basic needs like sleep or vacations. Particularly, Castells and colleagues argue that societal shifts associated with new communication technologies find us collectively experiencing "space" that is not defined by place but by communication patterns within a given network of relationships, and "time" that is not defined by a clock but through constant interaction that saturates all moments with activity.

Dimensions of organizational temporality

A review of workplace temporality research and related scale development and validation efforts by communication scholars Ballard and Seibold (2003) reveals that the human experience of time in Western, (post)industrialized organizations can be characterized along several continuous dimensions, grouped within two distinct

categories: *enactments of time* and *construals of time*. Enactments refer to the way work group members "perform" time and construals refer to the way work group members interpret or orient to time. Organizational units and their members create temporal norms for behavior through regularized patterns of interaction. These behaviors are reflected through their enactments of temporal *flexibility*, *linearity*, *pace*, *punctuality*, *delay*, *scheduling*, and *separation*. Beyond enactments of the temporal dimensions, group members construe, or interpret, time in certain ways. These construals are reflected in their temporal *focus (past, present, future)* and their construals of the *scarcity* and *urgency* of time.

Temporal enactments

Pace refers to tempo or rate of activity. Organizational units and their members may adopt an accelerated pace of work to cope with numerous tasks or with the speed of inputs within a defined span of time. Similarly, groups are described as fast paced or slow paced depending on the rate of input of stable or new stimuli in their environment.

Flexibility pertains to the degree of rigidity in time structuring and task completion plans. Temporal flexibility may be a function of the task or a consequence of organizational norms and practices. Research and development work, for example, is considered high in flexibility because the very nature of the work (as requiring both a task orientation and a time orientation) tends to allow individuals a good deal of autonomy over the process. It also unfolds within a more extended time scale than other types of work, such as sales.

Separation is a measure of (spatiotemporal) connection or availability among organizational members in time and space. Separation is signaled in spatial and temporal barriers to interaction, whereas connection has been signaled in the removal of these same barriers in order to facilitate interaction. For example, leave taking behaviors like standing up, gathering one's belongings, physically orienting one's body away from another, and/or checking the time are all ways that individuals signal the intent to separate from the stream of communication. Similarly, sitting down, taking off one's coat, and moving closer to another are ways that – for many generations – individuals have expressed that they have time for face-to-face interaction. Emergent forms of spatiotemporality afforded by new mobile communication technologies such as laptops, smartphones, netbooks, and tablets shed new light on ways in which separation may be enacted.

Scheduling reflects the extent to which the sequencing and duration of plans, activities, and events are formalized. Some organizational members experience their time as highly scheduled, full of meetings, appointments, and work related trips. This is common in executive positions and other boundary-spanning work. On the other end of the extreme, some types of work are almost completely unscheduled. Faculty research during semester breaks may not be subject to tight scheduling, even if faculty members engage in it daily. The key aspect of this dimension is the formalization of plans within the organization.

Whereas separation and scheduling each concern unique temporal aspects of the task environment, temporal *linearity* is associated with actual task execution. The

segmentation of parts and processes in time and space beginning with the industrial revolution is an example of linearity in the modern workplace. By contrast, more cyclic time is enacted as irregular, event based, and improvisational. A task orientation (described earlier) reflects a nonlinear enactment of time. Enactments of linearity can also be reflected in the difference between popularized notions of "unitasking" versus "multitasking."

Punctuality and *delay* refer to the exacting nature of timing and deadlines. These dimensions are conceptualized as separate constructs because of the multiple temporal commitments inherent in workplace responsibilities and job roles, and because of norms surrounding timing. Although a specific project may be running behind schedule or delayed, for example, organizational members may still respond to work requests quite promptly. This situation is characterized by both punctuality and delay. Alternatively, there may be lateness norms surrounding arrival to regular meetings or to work – perhaps members usually arrive closer to 9:05 a.m. for a 9:00 a.m. meeting. It would be inaccurate to characterize this behavior as punctual, but (given the shared norms) it would be equally inaccurate to consider it as delayed.

Temporal construals

Temporal *focus* concerns the degree of emphasis on the *past, present*, and *future*. Organizations and groups that construe time from a *past focus* frequently use previous events as a referent for today. It may take the form of discussing the "good old days" when things were better in the company than they currently are. As well, company cultures that glorify company founders often exhibit a past focus. In contrast, a past focus can also be the source of an underlying concern with not repeating mistakes made in the past. Notably, an organizational culture with a strong past focus can exist alongside a strong present focus and/or future focus. These three aspects of time are what we call orthogonal – distinct from each other, even if they are sometimes related. A *present focus* is concerned with unfolding, emergent contemporary events within a short time scale – often what is happening that week or day, although it can extend to a year or more depending upon the work for which a company is responsible. For project managers in an organization, a present focus may simply mean a concern with the current project as opposed to past or future projects (even if the current project will take a year to complete). Finally, a *future focus* is concerned with events that have yet to occur. This might mean an organization or group orients their attention to being the first to adopt new practices or technologies (in a sense, leading toward the future). It also relates to anticipating threats and opportunities in the environment more broadly. Thus, a future focus is an important quality of any organizational group.

Scarcity is defined as the construal of time as a limited and exhaustible resource. Temporal scarcity is emphasized in work situations characterized either by too many inputs within a given unit of time or by not enough time to complete a task, as reflected in the construct role overload. Groups also may have more time than they need to complete a task and find themselves experiencing underload. Key to the experience of temporal scarcity is the view of time as a commodity that either needs to be "saved" or "spent."

Construals of temporal *urgency* describe members' preoccupation with deadlines and task completion. Units characterized by constant stimulus–response interactions are likely to hold a sense of temporal urgency, or urgency may reflect a temporary valuation of time based on an impending deadline. Urgency is focused on the task, whereas scarcity is focused on the (temporal) resources available to complete it. For example, a group may have a sufficient amount of time to complete a task but still feel a sense of urgency in completing it due to the importance of the task. It can be an intersubjective experience, or some members may construe time as more urgent than others, reflecting a subjective experience. The Type A personality is characterized by a constant sense of time urgency.

Historical context, future directions, and summary

Historical context of theorizing time and work

The study of time among philosophers and scientists has proceeded for millennia. However, during the industrial revolution, fundamental changes in the nature of work and organizing gave rise to a whole literature on time in organizational studies. Chief among these accounts, British historian Thompson (1967) described the interrelationships among time, work-discipline, and industrial capitalism. Notably, one of the hallmarks of the industrial time consciousness he observed was a new – historically unprecedented – separation between what he termed *work* and *life*. This was enabled by new drivers of industry that were no longer tied to objective times, such as daylight or the planting and harvest seasons as experienced in agrarian work. The drivers of industry were not even tied to the task, another type of objective time, as was the case for the work of skilled artisans. Rather than a *task orientation*, the industrial revolution was driven by a (never before witnessed) *time orientation*.

One way to consider the difference between task orientation and time orientation is found in a key pair of terms that Bluedorn (2002) describes: *epochal time* and *fungible time*. A fungible time is just like any other time – it is fully replaceable or substitutable for any other equal period of time. For example, in the industrial revolution, the transition from hand production methods to machine manufactured products was associated with work in factories. Notably, factory work occurred at particular times determined outside of the control of the worker. Adherence to these hours was the very basis of the worker's exchange with the factory owner. This is referred to as the *commoditization of labor* and led to the equating of time with money. Further, enabled by improvements in electric lighting, these hours could literally occur at any time. This meant that all hours were the same – they were fungible and had no inherent meaning from one hour to the next. This is especially the case because the work was deskilled and inherent processes were actively eliminated from the purview of the factory worker. Thus, rather than being able to see a product from start to finish, and apprehend the various times associated with its production (including a beginning, middle, and end state), workers' time became fungible. This fungibility of time was associated with a time, versus task, orientation.

In contrast, an epochal time is different than other times: it is associated with a unique set of qualities distinct from other times. In nonindustrial work, both prior to and since the industrial revolution, the task was the driver of activity. For skilled artisans, in the past and in the present, their product or deliverable owns a process that must be actively attended to in order to produce the intended outcome. Making a piece of furniture has multiple stages, each very different in terms of what occurs during that stage and the type of interaction afforded at each stage. If there is a particular client, the first stage might be a meeting to determine the parameters of the table, including the size and materials involved. Depending upon the type of materials chosen, the remaining work may differ; certain types of wood may not be widely available, for example. This may introduce a natural delay in the process. As well, the furniture craftsperson will probably work at a different pace and in different ways at various parts of the process, particularly nearing the promised deadline for completion of the table. Thus, across several weeks or months, each part of the table production will be experienced as epochally different than each other part. Furthermore, the work on this custom table may be experienced as epochally different than any other table this furniture maker has produced. All of these qualities are characteristic of task orientation and in the postindustrial era are once again common as a way of producing work.

Future directions

More than a decade into the 21st century, communication, connection, and connectivity have joined time clocks and conveyor belts as the zeitgebers that fuel global commerce. The communication network has joined the clock for a large segment of the workforce, as new forms of time and space have emerged (Castells, 2000). Consequently, the nature of work is being redefined, and the spheres of work and life are joined once again. Organizational message flows now occur outside of organizational time (and space), offering an infinite extension of organizational work into members' lives. While telework is not new, the number of people now untethered from the office and seeking to simultaneously manage personal and professional interactions is growing. Owed to the emergence of a network society that Castells describes, the focus on time is changing accordingly.

In the industrial economy, the focus on time – by scholars, practitioners, and organizational members – is largely linked to productivity as a means of task accomplishment. In the postindustrial economy, time is linked to productivity through its role in establishing and minding the relationships needed to accomplish work (which is not limited to task work but includes more expansive, longer term, outcomes). It harkens back to earlier time research by Hall (1959) on polychronic cultures wherein relationships were the currency of work and, as a result, conceptions of time were fluid. Interruptions were not seen as impeding work but as the work itself, owing to their tie to human interaction and relationships. In contemporary organizations, according to a recent report by the McKinsey Global Institute (2012), the fastest-growing segment of the workforce is the *interaction worker*. Interaction work relies upon complex, ongoing communication and coordination with others. This shift calls for new ways of thinking about organizational temporality, and communication scholars are well poised to shape this conversation.

The relationship between time and communication has critically important implications for organizational members as well as scholars and practitioners. This is particularly so given the ubiquity of new communication technologies that permit remarkable speed, time–space fluidity, and near constant interaction in the accomplishment of work. These shifts signal the need to (re)consider how contemporary symbolic representations (embedded in the design of social networking platforms, email clients, handheld devices, and digital calendaring systems, among others) enable and constrain new experiences of time. In turn, these temporal experiences may shape new interaction patterns across key domains of organizational life. This will continue to make the study of time a critical issue for the study of organizational communication.

SEE ALSO: Burnout; Culture, Organizational; Groups and Teams in Organizations; Identification, Organizational; Jamming; Positive Organizational Communication Scholarship; Socialization; Space, Organizational; Telework; Virtual Teams

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