CHRONEMICS AT WORK: USING SOCIO-HISTORICAL ACCOUNTS TO ILLUMINATE CONTEMPORARY WORKPLACE TEMPORALITY

Dawna I. Ballard

ABSTRACT

The centrality of time to the quality and experience of our lives has led scholars from a variety of disciplines to consider its social origins, including temporal differences among social collectives. Consistent across their accounts is the acknowledgment that time is co-constructed by people via their communicative interactions and formalized through the use of symbols. The goal of this chapter is to build on these extant socio-historical accounts – which explain temporal commodification, construction, and compression in Western, industrialized organizations – to offer a perspective that is grounded in communication and premised on human agency. Specifically, it takes a chronemic approach to interrogating time in the workplace, exploring how time is a symbolic construction emergent through human interaction. It examines McGrath and Kelly's (1986) model of social entrainment as relevant to the interactional bases of time, and utilizes it and structuration theory to consider the mediation and interpenetration of four oft-cited practices in the emergence of a Westernized time orientation: industrial capitalism, the Protestant work ethic, the mechanized

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clock, and standardized time zones. Surrounded by contemporary workplace discussions on managing the demands of personal–professional times, this analysis employs themes of temporal commodification, construction, and compression to explore the influence of these socio-historical developments in shaping norms about the time and timing of work.

The scarcity of time is a taken-for-granted assumption in the contemporary workplace (Thrift, 1990). Management of this valuable "resource" is seen as critical to organizational effectiveness and indeed survival (Barkema, Baum, & Mannix, 2002). Time is commodified both in practice (e.g., billable hours equate with revenue and time clocks or time sheets are often used to calculate employees' wages) and through members' language (e.g., time is spoken about as being spent, saved, wasted, lost, and the like) (Bluedorn, 2002). While the *commodification* of time is a significant theme in work time investigations and reflects a familiar modernist analysis, Hassard (2002) proposes that in order to apprehend its full complexity, organizational temporality must be understood vis-à-vis three predominant tropes drawn from sociological theory that also includes the *construction* of time by quasi-autonomous work groups owed to symbolic and cultural processes, and the *compression* of time (and space) ushered in by postmodern communication technologies. While the commodification thesis privileges structure and rationality, and the construction thesis centers on members' agency, the compression thesis complicates both commodification and construction theses based on unpredictable patterns of informational development (Hassard, 2002). Therefore, Hassard argues that exploring time through one trope over others can offer a misleading image of time in contemporary organizations.

In light of the need to incorporate a more complex, pluri-paradigmatic understanding of time and organizations, the current chapter demonstrates the utility of a communication-based perspective for exploring the intersection of these tropes. Termed *chronemics* (coined by Poyatos, 1976), a communication-based analysis of time centers on "the meaning of human time experiencing as it influences and is influenced by human communication" (Bruneau, 1979, p. 429). Two important assumptions of a chronemic perspective are underscored in this description. First, time and communication are viewed as recursively constituted. That is, consistent with a structurational approach (Giddens, 1984), persons' experience of time is regarded to impact their communication patterns and, in turn, their communication patterns shape their experience of time. Second, the focus on meaning implies that a chronemic perspective is concerned with persons' intersubjective, or shared, experience of

time and not solely objective measures of their temporal behavior or subjective, personal, orientations. Consequently, as an intersubjective experience, human temporality inheres in persons' interaction with others, as well as in their shared symbolic representations (Bourdieu, 1977; Giddens, 1984).

In the present chapter, these two aspects of organizational temporality – its emergence through members' *interaction* and reflection in *shared symbolic representations* – are explored in order to depict the commonality and complementarity among the various tropes. Taken together, sociological accounts of temporal commodification, construction, and compression inform the dominant cultural patterns that modern industrialized organizations and their members bring to bear on a variety of workplace practices and experiences (Ballard & Seibold, 2003, 2006). Thus, interrogating the underlying processes through which these socio-cultural patterns are continually produced and reproduced directly assists our understanding of time in the contemporary workplace. To this end, the chronemic perspective developed in this chapter is situated broadly within a practice metatheoretical framework and Giddens' (1984) structuration theory, in particular. It centers analysis on the temporal structures (Orlikowski & Yates, 2002) that constitute varied organizational communication genres (Orlikowski & Yates, 1994). Additionally, it draws on entrainment (Ancona & Chong, 1996; Bluedorn, 2002; McGrath & Rotchford, 1983; McGrath & Kelly, 1986) as a mid-range perspective to further interrogate the ways in which these temporal structures shape and are shaped by members' interaction in and out of the workplace.

The chapter begins below by describing two key assumptions of a chronemic approach: the symbolic and interactional nature of time. Relatedly, it complements the focus on interaction through discussion of the interactional nature of entrainment processes. It goes on to further develop the chronemic perspective, assisted by a structurational analysis of the commodification, construction, and compression tropes. In this regard, it considers how each trope is linked to structures of domination, legitimation, and signification, respectively, as evidenced in broader economic, religious, and technological structures. It then applies this structurational lens to describe the emergence of a Western, industrialized temporal experience through considering how industrial capitalism, the Protestant ethic, mechanized timepieces, and standardized time zones (i.e., culturally-specific instantiations of domination, legitimation, and signification structures) shape and are shaped by human interaction and shared symbolic constructions in the contemporary workplace. To this end, it takes up popularized concerns regarding the time and timing of work-related activities (Bluedorn & Waller, 2006; de Graaf, 2003; Hochschild, 1997; Kirchmeyer, 2000) to

examine the entrainment processes associated with contemporary genres of organizational communication.

TIME AS SYMBOLIC AND ROOTED IN INTERACTION

Time as Symbolic

Time is symbolically constructed, as even timekeeping technologies demonstrate. From water clocks to quartz watches, the time communicated by these devices and the contraptions themselves are symbolic. Each represents a social contract – an agreement that they are a proper and fitting way to punctuate our lives (Ballard & Seibold, 2000). These media for marking existence are not axiomatic. Instead, as all symbols, they are arbitrary and agreed upon by members of the social group that they bind. Though persons may perceive nature as containing temporal cues, the interpretation of such cues is still culturally bound and subject to wide variation. Time is real only in the sense that persons have agreed to it, not because of some external measure. A second, for example, is merely a large (over nine billion) number of very rapid oscillations (Landes, 1983).

The symbolic nature of time is evident in both micro and macro social processes. At a micro level, numerous symbolic representations are employed to structure everyday social life and create predictable patterns of behavior. Consider a scheduled dinner date with a friend from work. Scheduling an appointment signals its perceived importance for both of the parties involved. In this case, it represents the desire to "make time" to maintain and foster a friendship unrelated to work; as such, the time allotted is symbolic of the importance of the friendship. The timing of this dinner date also is significant. It occurs after the end of the workday, during one's leisure. Consequently, there is often a loose presumption that business-related talk is off-limits – or at least more limited – during these times. The frequency of such dinner dates is yet another temporal device that can serve the symbolic function of regulating the degree of intimacy or familiarity of the parties involved.

At a broader macro level, extended intervals of time and particular points on that continuum become imbued with social meaning. Consider, for example, social sanctions extended for not meeting certain lifespan deadlines. For example, professional development is measured in large part based upon its timing (Hassard, 1991), one reason why recent organizational trends of downsizing have had such large emotional and psychological costs

(Buzzanell & Turner, 2003). Prior to being forced into early retirement, or simply terminated, many middle managers affected by these policies believed they were at a "time" in their lives when years of professional investment would begin paying off – with promotions, more financial security, and the like. Finding oneself unemployed at this time in the lifespan often takes on a different personal and social meaning at 50 years of age than it might have at being 25 years old (Buzzanell & Goldzwig, 1991). It is perhaps no less traumatic for a 25-year-old, but the meaning is different based on what the age, and timing of the event, symbolizes for persons (Ballard & Gossett, in press).

Not unrelatedly, Durkheim (1915) summarizes both the interactional and symbolic nature of time in his description of the calendar: "A calendar expresses the rhythm of the collective activities, while at the same time its function is to assure its regularity" (Durkheim, 1915, p. 23). The calendar symbolizes predictable patterns of social interaction. Additionally, it conveys the cultural values of simultaneity and coordinative action in the collective performance of certain rituals associated with various holidays. The symbolic aspects of time are related to the interactional character of time described next.

Time as Rooted in Interaction

At the same time that time is the backdrop against which human exchange unfolds, it is also the product of that exchange. It emerges as a consequence of our relationship to other people. Bourdieu (1977) observed that we interact within fundamental and perceptible temporal constraints. For example, our interaction occurs with a particular *frequency*, at a given *pace*, at a specific *point in time*, for a certain *duration*; it exists *in* relation to other communication episodes within a defined span of time, and can be characterized by a special *periodicity* (see, McGrath & Kelly, 1992). According to Bourdieu (1977), each of these perceived temporal constraints (e.g., frequency, pace, location, duration, sequence, and periodicity) merely reflects our having discerned a distinct pattern of human interaction. These interaction patterns are what give rise to social conceptions of time. In essence, human beings create their experience of time simply by (and as a consequence of) interacting with each other.

Related to our observations of time as grounded in, located by, and referenced through symbolic interaction, McGrath and Kelly (1986) developed a *social entrainment model* of human temporality that depicts time's social origins as dependent upon interaction as well. 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 (McGrath & Kelly, 1986) and it has been extended to organizational contexts by Ancona and Chong (1996) and Bluedorn (2002). Increasingly, social scientists are employing an entrainment perspective to describe how particular socio-temporal patterns develop (Blount, 2004; Bruneau, 1996; Hassard, 1989; Kelly & McGrath, 1985; McGrath, Kelly, & Machatka, 1984; McGrath & Kelly, 1986, 1992; Waller, Zellmer-Bruhn, & Giambatista, 2002; Zaheer, Albert, & Zaheer, 1999; Zellmer-Bruhn, Waller, & Ancona, 2004). McGrath and Kelly (1986) summarize the application of entrainment processes to analyses of human temporality:

> Numerous physiological, psychological, and behavioral cycles can become entrained to or modified by powerful social and environmental cues. The social entrainment model provides a framework for describing the operation of such endogenous, rhythmic processes, their coupling to one another and potentially to outside pacers, and the temporal patterns of behavior resulting from those rhythms of human behavior. (p. 80)

Thus, social entrainment highlights the interaction among entities (e.g., persons, groups, organizations, etc.) in a social system. It is used here as a mid-range perspective to elucidate the influence of societal practices on organizational members' experience of time.

Social entrainment rests on five assumptions (McGrath & Kelly, 1986). First, much of human behavior is temporal – i.e., regulated by cyclical, oscillatory, and rhythmical processes. Second, these rhythms are endogenous, or intrinsic, to systems. Third, sets of internal rhythms become synchronized within each system (i.e., they adopt the same *phase* and periodicity of occurrence). Fourth, when persons interact, their internal rhythms can become entrained to one another. Fifth, the internal rhythms of individuals and social groups can become collectively entrained, or synchronized, to powerful external pacers, altering the phase and periodicity of their endogenous rhythms. These fourth and fifth assumptions express the view that human temporality inheres in human communication – both via members' interaction and reflected in their intersubjective experience.

McGrath and Kelly (1986) have proposed a four-part model based on these propositions. The first component of their model, which McGrath and Kelly (1986) term RHYTHM, represents the view that all living organisms experience multiple endogenous rhythmic cycles. The second component, MESH, delineates the process whereby behavior becomes mutually entrained or synchronized with these cycles – the essence of entrainment. The third component, TEMPO, signifies that entrainment is evidenced in temporally patterned behavior. The final component, PACE, refers to the fact

that external events can disturb previously entrained cycles and cause them to become de-synchronized, and re-entrained (McGrath & Kelly, 1986).

There is empirical evidence that the entrainment model applies to activity cycles, wherein individuals become entrained to the temporal conditions of their work situations (Kelly & McGrath, 1985; Kelly, Futoran, & McGrath, 1990; Waller et al., 2002; Zellmer-Bruhn et al., 2004). These findings open up the possibility of a range of other processes and stimuli to which human temporal cycles might become entrained. Consider worldview as one of the multiple endogenous processes, or internal preferences, social collectives have in relation to their experience of time. In terms of McGrath and Kelly's (1986) model, a group's worldview is the basis of its RHYTHM. Societies bring this RHYTHM with them to the particular social practices with which they become engaged. Each of these practices is characterized by a unique RHYTHM. When collectivities become engaged with new practices, a MESH occurs with the temporal dimensions accentuated by those systems. This process is moderated based on members' cultural values and the reasons, or manner, in which they become engaged. Thus, the notion of MESH accounts for the relative influence of the exogenous pacer over the endogenous ones. Not all social collectives will be impacted in the same way because some practices will exert a more powerful influence based on its alignment with cultural values, and other factors will exert less influence based on their misalignment. The MESH eventually creates a specific TEMPO that is evidenced in a culturally-based experience of time.

Application of the entrainment perspective to the intersubjective temporal experience in Western, industrialized organizations can be elaborated by reference to Thompson's (1967a) account regarding the origins of a capitalist time consciousness. Thompson (1967a) wrote:

> Puritanism, in its marriage of convenience with industrial capitalism, was the agent which converted men [*sic*] to new valuations of time – which taught children in their infancy to improve each shining hour – and which saturated men's minds with the equation, time is money. (p. 95)

Thompson's (1967a) analysis can be reframed using McGrath & Kelly's (1986) model of entrainment focused on the relationship among RHYTHM, TEMPO, PACE, and MESH. Specifically, in Thompson's (1967a) account, the Puritanistic belief that work is moral leads to endogenous behavior cycles, or a RHYTHM, characterized by long hours spent working. As an example, Covey's (1989) classic, *The Seven Habits of Highly Effective People: Restoring the Work Ethic*, argues for the importance of a strong work ethic and

prominently discusses proper time management as part of this ethic. Thompson (1967a) goes on to point out that the endogenous work cycles of Puritanistic societies are similar to the endogenous work cycles inherent in capitalistic economies where monetary value is placed on time at work and idle time is seen as a wasted resource. Notably, reference to Covey's (1989) Quadrant IV activities, the nonimportant and nonurgent – essentially idle time – as something to be avoided, exemplifies this particular worldview. Thus, both Puritanism and industrial capitalism had a similar RHYTHM, and when members of a Puritan society were introduced to industrial capitalism, a MESH occurred between their respective RHYTHMs. Weber (1996) wrote about this MESH in his discussion of the "spirit" of capitalism as centered on three interrelated behaviors associated with morality: efficient time use, hard work, and frugality. Thus, these new valuations of time – the idea that each waking hour should be spent at work and the notion of time as a tangible resource – created a unique TEMPO in Western, industrialized culture. This TEMPO is reflected in cultural practices where members constantly strive to spend their (valued) time on any number of work-related tasks discursively constructed as important and where members have the goal of completing tasks in advance of their actual need or urgency. In sum, the PACE of life changed with the introduction of industrial capitalism within a Puritanistic culture, as documented in various historical and contemporary analyses (Bluedorn, 2002; Cross, 1993; Gleick, 1999; Thrift, 1990).

The entrainment perspective is interaction based because the outcome is contingent upon the objectives and engagement, or agency, of each social group. Industrial capitalism is a widespread practice. Identical temporal cultures, however, do not exist for groups who share this practice in common (Hall & Hall, 1990; Weber, 1996). Instead, social practices are moderated by group values – both inter- and intra-culturally.

Thus far, this chapter has proposed that the origins of time are social in nature – that time is emergent through symbol and interaction, via a process of social entrainment. Each of these assertions is developed in more detail in the following pages. First, the analysis considers the institutional structures that mediate these characteristics. It then goes on to explore the emergence of a Western, industrialized time consciousness through varied communication genres that serve as temporal structures in the contemporary workplace. While there is clearly no monolithic Western industrial culture, and intra-cultural variation in time orientation is a widely acknowledged and accepted phenomenon (Ballard & Seibold, 2000; Hall & Hall, 1990; Jones, 1988), scholars have observed that there are historically and geographically distinct temporal characteristics generally shared by members of Western, industrialized

organizations (Hall, 1966; Hassard, 1996; McGrath & Kelly, 1986). It is these broad socio-temporal patterns that are of interest in this work.

TEMPORAL COMMODIFICATION, CONSTRUCTION, AND COMPRESSION AT WORK: THE ROLE OF ECONOMICS, RELIGION, AND TECHNOLOGY

Scholars commonly have centered their analyses of the sources of temporal variation across cultures on three factors—technological advancements, religious beliefs or values, and economics or dominant modes of production (Gurvitch, 1964; Ingold, 1995; Thompson, 1967a; Thrift, 1990)—consistent with Hassard's (2002) tropes of compression, construction, and commodification, respectively. Exploring these practices through a structurational lens helps clarify why they are central to shaping social collectives' experience of time.

The most widely supported sources of temporal variation across cultural groups – *time-related technologies*, *religion*, and *economics* – each respectively represent structures of *signification* (i.e., language and other codes), which draw upon symbolic orders and modes of discourse, *domination* (i.e., the control of material and human resources), which draws upon economic and political institutions, and *legitimation* (i.e., normative regulation), which draw upon religious, ethical, and legal institutions. Each of these structures is produced and reproduced through interaction of some kind – *communication*, *power*, or *sanction* – and carried out via related modalities – i.e., *interpretative schemes*, *facilities*, and *norms* as described below.

Technology and Temporal Compression

Giddens (1984) underscores the particular importance of communication and information technologies in the transformation of social relations across time, and space-time compression is central to his analysis. Numerous technological inventions have been lauded as responsible for changing time consciousness, including mechanized clocks, wristwatches, stopwatches, standardized time zones, railways, computers, among a long list of other physical and social practices (Adam, 1992; Gleick, 1999; Mumford, 1934). The two technologies viewed as most central to the emergence of industrial time are the mechanized clock and standardized time zones (Giddens, 1985; Landes, 1983; Lundmark, 1996; Nguyen, 1992; O'Malley, 1990, 1992a; Smith, 1994) – both of which draw upon orders of signification. Clocks and the standardized time zones they make

possible are communicative structures that convey the hour. We "read" clocks and they "tell" us the time. Similarly, knowing the time zones of neighboring states or countries "tells" us the appropriate hour to conduct interstate or international business. As Orlikowski (1992) asserts, "It is only through human action that technology qua technology can be understood...the notion that technology needs to be appropriated by humans retains the element of control that users always have (however slight) in interacting with technology" (p. 410). Thus these technologies rely upon our shared interpretative schemes.

Giddens (1984) observes that structures of signification are a major institutional site of ideology and, as such, they always should be considered in connection with structures of domination and legitimation. This relationship accents an important quality of the various institutional orders and their related structures: they are separable only analytically. In the day-to-day conduct of social actors, each of these various structural properties of systems is implicated in every action. For example, the communicative functions of the clock are only important in light of the fact that in industrial economies persons are compelled to coordinate their lives based on this structure (drawing upon domination, power, and facility), which is often supported by larger ethical beliefs regarding the importance of work, wealth, and the proper use of time (which draws upon legitimation, morality, and norm). This analysis considers the structures of domination and legitimation that have played central roles in shaping this temporal experience next.

Economics and Temporal Commodification

Economics is "the study of the way in which mankind [*sic*] organises itself to tackle the basic problem of scarcity" (Pearce & Shaw, 1992, p. 121). This includes the means of production and sustenance for members of a society. The relationship between economics and time has been highlighted by comparing the temporal logic inherent in industrial work practices with the timing of agrarian work patterns (Grossin, 1993; Ingold, 1995; Inhetveen, 1994; O'Malley, 1992b; Raybeck, 1992). Industrial capitalism, which derives from orders of domination, has widely been regarded as a pivotal structure in changing Western time consciousness (Adam, 1995; Cross, 1993; Mukerjee, 1990; Mumford, 1934; Nyland, 1990; Thompson, 1967a; Thrift, 1990).

Orders of domination refer to resource authorization ("forms of transformative capacity generating command over objects, goods, or material phenomena") and resource allocation ("types of transformative capacity generating command over persons or actors" (Giddens, 1984, p. 33). Both the

allocative and authoritative qualities of industrial capitalism are apparent. At its core, industrial capitalism was borne via the capability of certain persons, who owned particular financial resources, to transform raw materials into finished goods and merchandise: this is an allocative resource. This capability is realized, however, only through authoritative resources. Large-scale production, a distinguishing characteristic of industrial capitalism, depends upon using other persons to transform these raw materials into marketable products. The primary means of accomplishing this is money that, as is discussed later, is given in exchange for control over workers' time (Marx, 1977), thus leading to the commodification of time. The particular relationship between resource allocation and authorization, intrinsic to industrial capitalism, helps to shape a unique experience of time for persons engaged in this economic system. In Weber's (1996) view, an important corollary to rise of industrial capitalism was the formation of a Protestant ethic, addressed below.

Religion and Temporal Construction

In Durkheim's (1915) *Elementary Forms of the Religious Life*, religion is defined as "a unified system of beliefs and practices relative to sacred things...which unite into one single moral community...all those who adhere to them" (p. 62). Durkheim (1915) asserts that social groups' conceptions of time are based upon their religious beliefs, a view later supported in Eliade's (1954) examination of cyclic versus linear notions of time related to various religions. In this regard, Protestantism, and the related work ethic it engenders, is an oft-cited source of modern time consciousness (Adam, 1990; Thompson, 1967a; Weber, 1996) that draws upon institutional orders of legitimation. As explored in more detail in the following section, beliefs about the meaning and value of time are a constitutive part of the Protestant ethic. Socio-temporal norms prevail that impose sanctions on persons or groups that violate formal and informal rules regarding time and timing.

The following section addresses the mediating qualities of the Protestant work ethic, based on specific religious beliefs (Thompson, 1967a), industrial capitalism, as an economic structure (Grossin, 1993), the mechanized timepiece, a physical technology (Landes, 1983), and standardized time zones, a social technology (Giddens, 1985; Gleick, 1999) in shaping organizational members' shared experience of time. In particular, it uses the oft-cited challenge of contemporary organizations – i.e., members' difficulty with managing personal–professional "balance" and/or boundaries – as an example of an issue that rests at the intersection of commodification, construction, and compression tropes and is illuminated through a chronemic lens.

INDUSTRIAL CAPITALISM, THE PROTESTANT ETHIC, MECHANIZED TIMEPIECES, AND GREENWICH MEAN TIME: EXPLORING THE COMMUNICATIVE ORIGINS AND OUTCOMES OF WORKPLACE TEMPORALITY

Industrial Capitalism: Why Time is Money

Through the commoditization of labor, time became equated with money (Marx, 1977). Inherent in this equation are consequences for human interaction. Interaction with others takes time, so it is seen as costly (Thompson, 1967b). In fact, any activity that impedes one's work schedule is seen as costly, including personal illness or family needs (Deetz, 1992). Attaching a cost to these events and activities transforms and guides persons' manner of interaction with others, both in and out of the workplace. The time necessary for such exchanges becomes guarded and protected. Efforts are made to reduce inefficient, time-consuming exchanges that detract from one's earnings potential without offering something of equal or greater value in return (Buck, Dean Lee, MacDermid, & Smith, 2000).

In turn and over time, persons' interaction patterns become characterized by an increased pace of life in an attempt to realize their full earnings potential while managing numerous other competing demands. The result is that persons often see time as a scarce, tangible resource that must be diverted from certain activities and given to others in order to acquire more of a particular (social or material) good or service. Consequently, they learn to make trade-offs between work and leisure time, basing their interaction patterns on how much time they can "afford." Relatedly, temporal experience often becomes entrained with the logic of commoditized time. The pace of life outside of work may become similar to the pace at work – in some cases resulting in "hurry sickness," or a chronic sense of time urgency, (Friedman & Rosenman, 1974) reflective of the temporal commodification that Hassard (2002) described. This entrainment also affects interaction at home. Hochschild (1997) supported the notion of entrainment with one's work rhythms in her book, *The Time Bind*, where she observed: "The social world that draws a person's allegiance also imparts a pattern to time. The more attached we are to the world of work, the more its deadlines, its cycles, its pauses and interruptions shape our lives and the more family time is forced to accommodate to the pressures of work" (p. 43).

The timing of work represents an exogenous pacer for organizational members whereas family time represents an endogenous pacer. Hochschild (1997) describes particular pacers: deadlines, schedules – including the fiscal year (i.e., cycles), seasons (i.e., pauses), weekends, vacations, and holidays (i.e., interruptions). Following McGrath & Kelly's (1986) model, these pacers make up the RHYTHM of work. Analogous to the issue of worldview described earlier, Hochschild's (1997) notion of "allegiance" or attachment is positioned as a moderating variable that predicts members' MESH with these workplace rhythms, and shapes the TEMPO of their activities across professional and personal boundaries. Ultimately, then, through the logic of industrial capitalism – wherein time is equated with money, the PACE of members' personal life necessarily becomes disrupted by and entrained to professional, or work-related, rhythms.

Hochschild's (1997) observation also highlights particular *communication genres* that come to serve as *temporal structures* for organizational members. Orlikowski and Yates (1994) define genres of organizational communication as "socially recognized types of communicative actions – such as memos, meetings, expense forms, training seminars – that are habitually enacted by members of a community to realize particular social purposes" (p. 542). Consider the function of a deadline as a communication genre. The mere assignment of a task deadline signals its importance, given the expenditure of the valuable and finite resource (read "time") it will require. Accordingly, organizational members may feel compelled to forego working on other tasks in order to make enough time available to meet the impending deadline. As well, under pressing deadlines members often feel precluded from engaging in extended interpersonal interaction (Gersick, 1988; McGrath, 1991), and communication at work and home may become strained during these times (Hochschild, 1997; Perlow, 1999). Thus, deadlines function effectively to fulfill the social purpose of regulating interaction, constituting a communication genre. Additionally, based on Orlikowski and Yates (2002) discussion of temporal structures as "created and used by people to give rhythm and form to their everyday work practices" (p. 685), it is also apparent that the communication genres described by Hochschild – including deadlines, schedules, workdays, workweeks, fiscal years, off days (sometimes called weekends or "free time," Sabelis, 2002), holidays, and vacations – simultaneously serve as temporal structures.

Moreover, Orlikowski and Yates (1994) noted that:

> Members of a community rarely depend on a single genre for their communication. Rather, they tend to use multiple, different, and interacting genres over time. Thus to understand a community's communicative practices, we must examine the set of genres

> that are routinely enacted by members of the community. We designate such a set of genres a community's "genre repertoire ..." (p. 542).

A common *genre repertoire* for members of Western, industrialized organizations centers around the *time and timing of work-related activity* – reflected in the temporal structures Hochschild (1997) referenced. This genre repertoire is the center of a great deal of attention in academic and popular press circles as concerns citizens' quality of life (Bailyn, 1993; Ciulla, 2000; de Graaf, 2003; Fraser, 2001; Rapoport, Bailyn, Fletcher, & Pruitt, 2002; Schor, 1991), and the ways in which it shapes and is shaped by organizational members' experience of time highlights the intersection of temporal commodification, construction, and compression. Below, the issue of "allegiance" that Hochschild (1997) described and its relationship to McGrath and Kelly's (1986) MESH is further interrogated through discussion of the Protestant work ethic and temporal constructions.

The Protestant Work Ethic: "They Make Tallow Out of Cattle, and Money Out of Men."

Weber (1996) saw the Protestant work ethic as a necessary precondition to industrial capitalism and as an additional source of the creed that "time is money." The Protestant ethic has been described as "the idea of a duty of the individual toward the increase of his capital, which is assumed as an end in itself" (Weber, 1996, p. 51). In contemporary society, this definition reflects an approach to work, not necessarily a religious affiliation; nonetheless, exploring the original source of this construct sheds light on its position as a structure of legitimation and its relationship to industrial capitalism. In Weber's (1996) view, the Calvinistic belief in worldly success as a means to everlasting life was the drive required for the success of capitalism as an economic system. Recall the entrainment argument proposed earlier in this chapter that worldview (of which religious beliefs are a constitutive element) moderates the manner in which groups become engaged with, or entrained to, specific temporal structures. The relationship that Weber (1996) depicted between the Protestant work ethic and industrial capitalism supports and illuminates this contention. This relationship is also consistent with Thompson's (1967a) analysis of capitalist time consciousness and Hassard's (2002) claim that temporal construction proceeds based on organizational members' own needs and values.

Viewed through a chronemic lens, the role of Puritanistic values in shaping members' temporal constructions inheres through the manner in which these precepts guide interaction. Because of the focus on acquiring monetary

wealth through long hours at work, work-related activities are often afforded priority at the expense of other forms of interaction (Cross, 1993). Too many leisure activities are seen as wasteful indulgences because one's morality is judged, in part, based on the proper (or improper) use of one's time (i.e., time spent working) (Andrew, 1999; Weber, 1996). This view of morality can lead to a sense of temporal urgency surrounding times that are not filled with productive work activity and an emphasis on speed and efficiency in an effort to use time more wisely (Gleick, 1999). Like industrial capitalism, this urgency may also affect norms surrounding the length and frequency of social exchanges.

Due to the interpenetration of structures, when beliefs regarding the value of efficient time use are coupled with the practical implications of industrial capitalism, the Protestant work ethic becomes a powerful factor in cultural groups' temporal constructions and their entrainment with the time and timing of work-related activity. It also highlights the nonrational aspects of temporal construction by organizational members. Among the temporal structures in this genre repertoire, holidays, weekends, and vacations reveal how members' professional temporal constructions can negatively impact the time in their personal lives – despite their formal autonomy to construct time as they wish. In her study of top managers Sabelis (2002) observed that "working time seems to penetrate into 'free time'... For most of the managers, it is increasingly difficult to determine the length of a working week in terms of hours, but this seems not to be a problem. It is not really relevant for top managers, as their jobs are increasingly 'project-related.' The 'job' has to be done and positions and conditions are quite clear" (p. 73). Additionally, some participants reported that, while they relish time off and some even view Saturdays as sacred personal time, nonetheless, they were always available in one way or another. While their level of autonomy grants the ability to determine the actual times they start and stop work, their acceptance of (or, even, allegiance to; Hochschild, 1997) the schedule associated with a "project" model led them to maintain 24 hour availability. Hence, they modeled temporal constructions not fully accounted for within a rationalized commodification thesis.

Another kind of temporal structuring that is better explained by a construction rather than a commodification thesis is the alternative work arrangement (Ballard & Gossett, in press; Buck et al., 2000). As Buck et al. (2000) described: "alternative work arrangements shed new light on the phrase 'time is money....' With reduced-load work arrangements, in which individuals are voluntarily working fewer hours and being compensated less as well, workers are essentially 'buying time'... buying the right to adjust the scheduling of work to be more convenient with other priorities in their life,

to increase the degrees of freedom in orchestrating the interplay of work, personal, and family life elements, or to set one's own boundaries rather than conform to expected norms of hours spent at work or a traditional meaning of success" (p. 26). While this sort of construction is not an option for all organizational members, depending on a number of factors from income level (Ehrenreich, 2001) to job type, it illustrates the notion of competing endogenous and exogenous pacers, or RHYTHMS, and the role of agency in the process of entrainment, or MESH among systems. Thus, organizational members' TEMPO can reflect the PACE of both professional and personal temporal structures. Next, the commodification and construction theses are complemented by considering the impact of technology on temporal compression in the lives of organizational members.

Time as Technology

> "The clock, not the steam engine, is the key-machine of the modern industrial age." (Mumford, 1934, p. 14)

The Mechanized Timepiece

Clocks are a central feature and focus of postmodern life, and they serve as a primary temporal structure used to measure the time and timing of work-related activity. Further, the use and proliferation of clocks and watches in the nineteenth century is regularly cited as a major contributing factor in the changing cultural time consciousness (Adam, 1992; Ingold, 1995; Landes, 1983; Lundmark, 1996; Mumford, 1934; Neustadter, 1992; Smith, 1994; Spangler, 1981; Thompson, 1967a). Mumford (1934) described the function of the clock as a symbol that influences the experience of time and articulated its role in moderating interaction patterns. He explained:

> To keep time was once a peculiar attribute of music: it gave industrial value to the workshop song or the tattoo or the chantey of the sailors tugging at a rope. But the effect of the mechanical clock is more pervasive and strict: it presides over the day from the hour of rising to the hour of rest. When one thinks of the day as an abstract span of time, one does not go to bed with the chickens on a winter's night: one invents wicks, chimneys, lamps, gaslights, electric lamps, so as to use all the hours belonging to the day. When one thinks of time, not as a sequence of experiences, but as a collection of hours, minutes, and seconds, the habits of adding time and saving time come into existence. (p. 17)

This passage underscores how the symbolic power of the clock to alter persons' experience of time also exerts powerful influence on their

interaction patterns in their day-to-day activities. Coupled with industrial capitalism and a Protestant work ethic, the symbolic representation of human existence in hours, minutes and seconds heightens awareness of the need to spend time wisely, i.e., working. When long hours clocked are collected and worn as badges of honor, this value necessarily affects the quantity and, perhaps, even the quality of time persons spend engaged with others outside of work. This consequence would later contribute to the push for work vacations and holidays designed to recover that quality time to interact with family and loved ones (Cross, 1993; de Graaf, 2003). Therefore, the clock not only symbolizes time as objective and real (which leads to construals of it as linear, urgent and scarce) (Ballard & Seibold, 2006), but it also enables and constrains interaction based upon these perceived characteristics.

Landes' (1983) historiographic account of the emergence of the clock (i.e., through economic and religious leaders [urban bourgeoisie and monastic clergy] who provided the driving impetus and resources for the technology) illustrates the mutually supportive role among economics, religion, and technology in the West that contributed to the predominance of the mechanized timepiece. Since the introduction of the clock, industrialized culture has become gradually entrained to its intrinsic logic, or TEMPO, of regularity, precision, linearity, tangibility, awareness, and segmentation (Adam, 1990, 1992, 1995; Gleick, 1999; Lundmark, 1996). The simple use of a clock or wearing of a watch does not, however, necessitate a uniform time consciousness, or PACE. Technologies do not create time; they represent exogenous pacers. Instead, groups' own time-based values and needs, or RHYTHM, moderate the manner in which they become engaged with technologies and the resultant likelihood of a MESH (MacKenzie & Wajcman, 1985). This influence depends upon how it is used in interaction. For example, in various geographic and historical contexts, persons have worn nonoperative wristwatches (Landes, 1983; Smith, 1994): the watch was appropriated as a status symbol, rather than a means of time keeping, thus mediating any deterministic "effects" of the practice.

Standard Time

The precise measurement of time afforded by the mechanized timepiece enabled another critical juncture in the development of an industrial time consciousness that led to *temporal compression*: standardized time zones. Giddens (1985) indirectly examined the importance of time to both industrialism and urbanism in his discussion of the means by which the nation-state rose to dominance. He reasoned that a successful nation-state required conquering the time–space

convergence. This conquest was accomplished through the mechanization of transportation via railways. Railway travel requires intense levels of coordination, standardization, and precision – all of which required a standardized measure of time. This requirement led to the creation of standardized time zones. "At the Prime Meridian Conference held in Washington during that year (1884) ... Greenwich was adopted as the zero meridian. The globe was partitioned into 24 time zones, each one hour apart, and an exact beginning of the universal day was established" (Giddens, 1985, p. 175).

While the original motivations to establish standardized time zones were political and economic, standard clock time soon came to be thought of as a very objective and real measure (O'Malley, 1990, 1992a, 1992b; Nguyen, 1992). In fact, persons soon felt that "... the local time previously kept was not in fact 'God's time' but a time based on a fictitious Mean Sun, chosen because the Sun itself was such a bad timekeeper: indeed, in some months of the year, the new railway time was closer to God's time than before" (Howse, 1980, p.107). The influence of standardized time on persons' temporal experience inheres through the symbolic function it serves. The establishment of Greenwich mean time (GMT) assigned a kind of symbolic authority and objective reality to the clock and its measure (Gleick, 1999). GMT granted the hours of the day a kind of omnipresence across the globe, making this time seem essential to the appropriate functioning not only of persons and groups, but of societies, as well: it finely synchronized our actions. Over time, this social technology gave rise to "a kind of entrainment of national biorhythms; residents of the American West Coast, for example, tend to rise earlier and go to bed later than East Coasters, because of the gentle pressure of communication across 3,000 miles" (Gleick, 1999, p. 45).

Fueled by capitalist work rhythms and a Protestant-based work ethic, this entrainment with time-based technologies is reflected in temporal compression. Sabelis (2002) described that "compression implies pressure on and within time frames and other temporal aspects [Eigenzeiten] in organizations and beyond. It thereby provokes a change in the actual duration of work processes" (p. 129). Thus, the impact of organizational members' genre repertoire concerning the time and timing of work-related activity – including temporal structures like deadlines, schedules, workdays, workweeks, fiscal years, weekends, holidays, and vacations – is more difficult to measure and not fully explained within either a commodification or a construction thesis. For instance, mobile computing technologies that rely on nanoseconds and facilitate the ease of travel without compromising productivity complicate the simple equation that time is money. Instead, through temporal compression, time can simultaneously offer both economic *and* social benefits. Multitasking

affords the ability to mix professional and personal activities (Lee & Liebenau, 2002), even if the value of doing so is unclear (Bluedorn & Waller, 2006). Similarly, the question of whether members' temporal constructions privilege professional over personal time – or disadvantages both times – is also difficult to answer.

E-mail use and norms highlight the complexity introduced by technology and exemplify Sabelis's (2002) discussion of temporal compression as creating pressure on time frames at work and beyond as well as extending the overall duration of work processes. First, the pressure on time frames is evidenced by the speed with which organizational members are often expected to reply to a message (Bugeja, 2006). Bugeja reported data from a survey wherein respondents described expectations for speedy e-mail replies – 56 percent of the respondents expected a response within the day and almost one-third expected a response within two to four hours. Here, an asynchronous technology, e-mail, has been (re)appropriated as nearly synchronous. In fact, when asked to indicate whether e-mail is a synchronous or asynchronous technology, respondents in another study categorized e-mail as synchronous (Jourdan, 2006).

Furthermore, the pressure resulting from this compression extends beyond work. Bugeja (2006) reflects:

> Mihaly Csikszentmaihlyi writes, in his best selling book *Flow: The Psychology of Optimal Experience*, that jobs are easier to enjoy than free time. Work, he adds, has "built-in goals, feedback, rites, and challenges, all of which encourage one to become involved in one's work, to concentrate, and lose oneself in it. Free time, on the other hand, is unstructured, and requires much greater effort to be shaped into something that can be enjoyed." Maybe that was true in 1990, when *Flow* was first published and when e-mail did not set the days agenda, blurring the line between home and work. In the past, we may have taken our jobs home with us in briefcases to read memos in the lamplight of the living room, but our workload didn't compound hourly with 'in' boxes filling up with digital mail and assorted attachments – interspersed with spam, phishing attempts, and scores of other scams. (p. B14)

Thus, a compression lens highlights the difficulty of describing exactly how temporal structures such as free time and the workday figure into organizational members' temporality. Related to extending the pressure beyond work, the same respondents that expected fast e-mail replies from others also "echoed a common nightmare in returning from a vacation to find hundreds of messages clogging their in box" (p. 30). Consequently, Bugeja (2006) described an inability to be fully present in the moment with his wife and children during the first 72 h of his vacation due to the constant awareness that his inbox could be filling up with time-sensitive communication.

This observation raises the specter that temporal compression may sometimes deny organizational members both their personal and professional time. When the time and timing of work-related activity becomes ever-present, as is often the case with e-mail, temporal structures like holidays and vacations have less clear meaning.

Bluedorn and Waller's (2006) discussion of the temporal commons offers some traction in studying temporal compression in the workplace. Compression is typically employed as a means toward greater efficiency (Sabelis, 2002); however, Bluedorn and Waller (2006) suggest that many gains in efficiency have been offset by a corresponding loss in effectiveness. "Efficiency is about how; effectiveness is about why. Efficiency is to effectiveness what intelligence is to wisdom" (Bluedorn, 2002, p. 105). Bugeja's (2006) common experience (at least for the present author) of taking a vacation only to spend it worried about work he was not completing is one example of such ineffectiveness. Bluedorn and Waller (2006) propose the construct of the *temporal commons* as both an explanation and solution for the challenges faced in a postmodern society. First introduced by Bluedorn (2002) as a metaphor that highlighted the role of human agency in members' experience of time, the temporal commons is "the shared conceptualization of time and the set of resultant values, beliefs, and behaviors regarding time, as created and applied by members of a culture-carrying collectivity" (p. 367).

Bluedorn and Waller (2006) argue that market-driven values have already been applied to enclose this temporal commons and to fundamentally change the way we experience time consistent with beliefs that: (1) all time is available for market transactions, and (2) time is valued based solely on its transaction potential. These observations can be framed within McGrath and Kelly's (1986) entrainment model: Based on social values of efficiency as a metric of good stewardship, our collective RHYTHM has come to reflect a MESH with a market TEMPO. They assert that this PACE can be changed, however, if alternative metrics are used to judge our management of the temporal commons.

Applying the lenses of commodification, construction, and compression to the temporal commons illustrates the complementarity of the tropes. Consistent with the ambiguity Hassard (2002) notes concerning the analysis of temporal compression, Bluedorn and Waller (2006) acknowledge our inability to precisely assess proper balance between the metrics of efficiency and effectiveness. Nonetheless, these metrics serve as sensitizing concepts to consider the conscious and unconscious choices that members of industrialized cultures make about their experience of time across personal and professional boundaries, or whether such boundaries even exist. This

dilemma emphasizes the tension between structure and agency regarding the time and timing of work-related activity. While the instrumental value of time (temporal commodification) is critical for a basic level of efficiency, and the ability to exercise autonomy in making localized choices about one's time (temporal construction) is desirable in facilitating both efficiency and effectiveness, so the utility of coordination and the precise measurement of time (temporal compression) makes it difficult to apprehend the appropriate balance between the two. When viewed within a chronemic perspective, one such standard for this balance, or proper stewardship, might center around the quality of members' interaction within and outside the workplace.

SUMMARY

Inherent in the role of time as a signpost for human activity and development is how the experience of time impacts the quality of our lives. Consider the standard temporal qualifiers in response to inquiries regarding our wellness. Expressions regarding an impending deadline, framing future plans, or events as either pleasant or dreadful, or statements about having too much or not enough "time on our hands," all may appropriately and explicitly answer questions regarding our wellness. Each of these simple references to our experience of time is taken to be a sufficient, and even precise, answer about the state of our well-being; its meaning is understood and exists as part of a temporal lexicon in modern life. Indeed, Friedman and Rosenman (1974) popularized the relationship between our experience of time and our quality of life through a study about the risk of coronary heart disease associated with particular lifestyle characteristics of the "Type A" individual.

The centrality of time to the quality and experience of our lives – in and out of the workplace – has led scholars from a variety of disciplines to consider its social origins and outcomes (Bourdieu, 1977; Evans-Pritchard, 1940; Fraisse, 1963; Gale, 1967; Gell, 1992; Hassard, 1990; Hill, 1989; McGrath & Kelly, 1986; O'Malley, 1992b; Sorokin & Merton, 1990; Zerubavel, 1981). The goal of this chapter was to build on extant socio-historical accounts – which explain temporal commodification, construction, and compression in Western, industrialized organizations – to offer a chronemic perspective that is grounded in communication and premised on human agency. Specifically, it considered key theoretical similarities between communication and time, exploring time as a symbolic construction emergent through human interaction. It also examined McGrath and Kelly's (1986) model of social entrainment as a theoretical

framework relevant to the interactional bases of time, and utilized it (and structuration theory) in reanalyzing the mediation and interpenetration of four oft-cited factors in the emergence of a Westernized time orientation: industrial capitalism, the Protestant work ethic, the mechanized clock, and standardized time zones.

Surrounded by contemporary workplace discussions on managing the demands of personal–professional times (de Graaf, 2003; Hochschild, 1997; Kirchmeyer, 2000), this analysis employed Hassard's (2002) themes of temporal commodification, construction, and compression to explore the influence of these socio-historical developments in shaping norms about the time and timing of work. Notably, it highlighted the importance of agency – driven by culture and worldview – in organizational members' entrainment with various temporal structures that enclose our temporal commons.

Horning, Ahrens, and Gerhard (1999) have observed that: "Time is neither an abstract entity nor is it a neutral medium, but a result of human engagement with the world. We cannot understand time by looking at it alone but rather by analyzing the ways people are involved in everyday life"(p. 293). A chronemic analysis attempts to uncover precisely *how* people are involved in everyday life through exploring the symbolic function various societal practices serve for them and the ways in which these practices influence and are influenced by their interaction with others. This perspective can be useful for scholars from a variety of disciplines in exploring intersubjective constructions of time, and should lead to more dynamic, agency-driven analyses of this process.

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