Chapter 11
Time Pressure, Pacing Styles, and Polychronicity: Implications for Organizational Management

Vinicius Carvalho de Vasconcellos

Time constitutes a fundamental dimension in organizational dynamics and conditions the execution of work at several levels. In spite of this centrality, there is reasonable consensus that time is routinely neglected in work and organizational psychology (WOP) and in administration (Ancona, Goodman, Lawrence, & Tushman, 2001; Caetano, 2012; George & Jones, 2000; Lee & Liebenau, 1999; Sonnentag, 2012). The reduced exploration of the theme in WOP has notably become harmful, considering that the incorporation of temporal aspects arises as a critical step in moving this area in the direction of greater theoretical and empirical sophistication (Shipp & Cole, 2015).

Faced with these points, this chapter reviews studies on three constructs that deal with the temporal relation of individuals with deadlines and tasks (time pressure, pacing style, and monochronicity/polychronicity), with emphasis on the relation of these constructs with performance, job satisfaction, and professional well-being. In line with the management proposal based on evidence (Pfeffer & Sutton, 2006), the proposal is to highlight practical implications of the study results and aid organizations in the development of management practices that improve the temporal relation of individuals with their work.

The first section discusses the very idea of time and the distinct concepts used to understand it. Next, the chapter describes how temporal aspects can be integrated into the analysis of organizational life so as to gain the attention of WOP and human resources (HR) professionals to the relevance of temporality in the understanding of daily labor experiences. The chapter then focuses on time pressure constructs, pacing style, and monochronicity/polychronicity, synthesizing the main results found in literature.

V.C. de Vasconcellos (✉)
Petrobras Inc., Rio de Janeiro, Brazil
e-mail: viniciuscarvalhodevasconcellos@gmail.com

11.1   Time Concepts

The ubiquity of time makes it widely familiar to individuals and social groups. In its most simple form, the time experience is immediate, that is, it prescinds any previous knowledge or reflexive deepening. In being so elementary, it is impossible to think of life without remitting to the passing of time. In effect, decisions, affections, cognitions, and individual behavior are so influenced by temporal aspects that this influence paradoxically becomes almost imperceptible. For example, the prosaic decision to have lunch at a determined restaurant is generally conditioned by past experiences at the location and/or the future expectation of tasting delicious, nutritious food.

The immersion of life in the temporal flow, strictly speaking, makes it difficult to think of time as a single, limited entity. As such, the conception of time remains elusive, notwithstanding the recurrent attempts to establish a definition in the history of philosophy and science.

If the ultimate definition of time continues to be a problem, it is possible to notice advances in the understanding of the temporal experience. This emerges from the perception that the world and its individuals are inescapably crossed by changes, a process delimited by the concepts of success and duration (Fraisse, 1984). The first is reported as the perception that two or more events are different and are sequentially organized. The second remits to the perception that there is (are) an interval (intervals) for the events to occur. Time experience, therefore, reflects a sense of order derived from the ability that our senses perceive that the events detain duration (beginning, middle, and end) and follow each other.

Duration and succession are at the base of the most usual representations of time in contemporary societies: temporal dimensions (past, present, and future), the clock, the chronometer, the calendar, and seasons of the year. These representations fraction the temporal *continuum*, making it more understandable. As such, humanity can appropriate time and use it to coordinate social function.

This human interest in time has placed time within the roots of scientific method. Studies on time as a natural (headed by physics) and psychosocial (led by psychology and sociology) phenomenon have left its mark on the history of science. Reviews on time recognize the equal existence and importance of each of these two fields of research (Ancona, Okhuysen, & Perlow, 2001; Lee & Liebenau, 1999; Orlikowski & Yates, 2002; Roe, 2006; Shipp & Cole, 2015). In these reviews, time as a physical-natural phenomenon is commonly labeled as objective time, even though other designations arise, like clock time, chronological time, or measured time. Time as a psychosocial phenomenon is normally called subjective time, even though there are other designations, such as social time, event time, or experienced time.

11.1.1   Objective Time

The conception of objective time supposes that time flows in a unidirectional/liner, homogenous, predictable, quantitative, absolute, and universal way (Ancona, Goodman et al., 2001; Lee & Liebenau, 1999; Shipp & Cole, 2015):

- Unidirectional/linear because it always evolves in the same sequence: past, present, and future.
- Homogenous and predictable because it elapses uniformly: 1 min always lasts 60 sec, just as 1 h always lasts 60 min.
- Quantitative since it is measured and expressed in infinitely divisible numerical units.
- Absolute and universal given that it is independent of events and individuals.

By means of calendars and clocks, the objective time controls from the launch of interplanetary probes to that afternoon coffee scheduled between friends. Specifically, the development and dissemination of the mechanical clock performed a critical role in diffusing the objective concept of time. Unlike the sun clock and the hourglass, imprecise and impractical timepieces, the mechanical clock conceded the ability for humanity to measure the duration/sequence of events in an exact, regular, accessible, and uninterrupted way (Whitrow, 2005). The regularity and precision of the mechanical clock quickly elevate it to the condition of metaphor of the function of nature, especially in scientific circles.

Newtonian physics, with its laws regarding mechanical bodies, was the epitome of this world vision sustained by the supposition of a rigorously objective time. Centuries later, the homogeneity/regularity of time was revisited by the Einstein Theory of Relativity. It proposes that time passes in different forms depending on the speed of the observer and the gravitational field of the bodies (Lee & Liebenau, 1999; Whitrow, 2005). It should be stated that Einstein's contributions, even though contesting the regularity and absolute character of time, do not transform it into a subjective phenomenon. They only indicated that time, yet conceived as a physical, natural, and quantitative variable, is influenced by other physical variables (observer speed and gravitational force).

11.1.2 Subjective Time

The second conception of time welcomes it as a subjective phenomenon. It is a nonlinear, heterogeneous, discontinuous, relative, and social time (Lee & Liebenau, 1999; Orlikowski & Yates, 2002; Shipp & Cole, 2015). In this conception, instead of being inexorably linear and progressive, time can assume a cyclical character. Many societies hold or held this perspective to organize their institutions and cultural practices (Eliade, 2005), always parting from the idea that history repeats itself. Periodically, these societies live the repetition of their creation, including a new cycle that purges past sins, problems, and sickness.

Subjective conception also puts time linearity and progressivity in check on the individual plane, notably in considering that thought can flow freely between the three temporal dimensions. For example, individuals, from the present moment, can relive memories or anticipate events that have not yet happened.

Subjective conception equally presupposes that time passes in a heterogeneous way. Some moments go by too quickly. Others drag by. This fluctuation in experiencing duration counters the supposition of temporal regularity. The positive psychology state of flow (Csikszentmihalyi, 2013) recognizes the alteration in the perception of duration. In this situation, individuals attain their optimum experience, where there is great intrinsic motivation and their attention is totally invested in the established objectives and challenges. In the flow experience, individuals state that "time flies" and are surprised at how time has passed (objectively) during the activity.

The discontinuity of time is another characteristic of subjective time. This discontinuity is condensed in the idea of time of events (Ancona, Goodman et al., 2001; Roe, 2006), which is manifest in the form of marking the temporal flow by means of significant events, in detriment to the continual sequence of minutes, hours, days, and years. For example, individuals usually use events such as a move from the city or a wedding to delimit periods of their life. Natural tragedies, economic crises, and changes in government operate in the same way for societies and countries.

Finally, the subjective concept attributes a social or relative meaning to time. In contrast to absolute time, the approach recognizes that time acquires meaning in passing through collective interpretations and conventions. In this direction, cultures are different as to the rhythm of their daily activities, time structure (continuous or discreet), directionality (linear or cyclical), and the temporal perspective (focus on the past, present, or future). Synthesizing, each society develops its own references of temporality.

11.1.3   Objective and Subjective Time: Possible Interfaces

The conceptions of objective and subjective time are in constant contact in the daily life of individuals. In this sense, calendars are emblematic, because they were developed based on the mix of objective astronomical phenomenon with social conventions. More precisely, the number of days and months finds it roots in the solar and lunar cycles, physical phenomena that are objectively measureable. However, since the monthly division (lunar cycle) and the yearly division (solar cycle) into days do not result in whole numbers (29.54 and 365.24 days, respectively), societies developed different forms to accommodate the fractions that remained (Frank, 2011). As a matter of fact, the Christian, Jewish, and Chinese calendars are not only in distinct years as they also separate different months and days to celebrate the New Year.

It is also interesting to note that calendars and clocks are socially produced products. However, they are also artifacts that symbolize the objectivity of time since they are fixed on a precise temporal scale that transcends the individual experience (Roe, 2006). As such, the borders that separate the two conceptions of time are more porous and flexible than one could suppose. In the face of what has been shown, there is no reason to defend one of the conceptions to the detriment of the other. At the heart, the existence of both favors the understanding of time. Recent publications have sought to overcome the simple dichotomy between the conceptions of

time, attesting to their complementarity (Roe, 2006; Shipp & Cole, 2015; Shipp & Fried, 2014).

Recognizing the two faces of the phenomenon, it is here assumed that objective time is the conception that sustains time as an essentially continuous, linear, and predictable phenomenon that transcends individual/group subjectivity (even when recognizing human intervention in the form of measuring and structuring). In complement, subjective time expresses time as a discontinuous, nonlinear, heterogeneous phenomenon that is relative to the particular experiences of individuals and societies. These two conceptions contribute to the understanding of the temporal variables and constructs in the organizational context, core of the next section.

11.2   Time and Organizations

Time is a structuring condition for labor and organizations. That is, work is executed within a determined duration, sequence, and rhythm in the flow of time. Meetings, projects, processes, and contracts present a beginning, middle, and end, covering days and specific schedules. Organizational events such as publishing profit reports and professional performance evaluations are distributed on the calendar and programmed to occur periodically.

The time-labor-organization relation, even though a topic debated since the birth of scientific administration, acquired a new connotation in the last decades. Technological innovations, globalization, and the increase in competition have awakened a process of organization acceleration where the continuous implantation of changes and the intensification of the pacing style converge in the attempt to "shrink" time and increase productivity (Caetano, 2012). This scenario drives employees to make quicker decisions, reduce their answer time, and engage in more activities at the same time. The sensation that time is something scarce in organizations is becoming more and more pronounced, and the defense of temporal balance between personal life and work emerges as a contemporary theme of discussion.

Temporal acceleration may have sensitized academics in the organizational world regarding the time theme. In fact, at the turn of the millennium, a series of theoretical articles and reviews demanded more attention to time in the organizational context (Ancona, Goodman et al., 2001, Ancona, Okhuysen et al., 2001; George & Jones, 2000; Lee & Liebenau, 1999). This call resounded in the subsequent years and the number of organizational studies that broached temporal aspects grew (Shipp & Cole, 2015). Regardless of this evolution, the field still lacks integration and coherence between the diverse forms of research (Ancona, Okhuysen et al., 2001).

In the literature, the most elementary distinction between the forms of incorporating time in the analysis of organizations refers to the difference between the use of time as a temporal reference or as a temporal variable/construct. As a temporal reference, time is understood as means by which changes materialize (Shipp & Cole, 2015) or as a context that involves and limits happenings (Sonnentag, 2012). Longitudinal studies show the use of time as a temporal reference in academia. In this case, time is not the focus of interest. It is as a marker to capture the variations

of the constructs, processes, and relations in the temporal *continuum* (Chan, 2014; Shipp & Cole, 2015). In the role of temporal reference, time is essentially based on the conception of objective time (Chan, 2014). It is the time conception that does not depend on the subjectivity of each individual, characteristic that, by the way, permits it to operate like a reference to events and activities.

On the other hand, as a temporal variable/construct, time is no longer a support and assumes substantive role in analyses (Shipp & Cole, 2015; Sonnentag, 2012). In this sense, its relation to other variables can be directly tested in models. Time, in this case, ceases to be the means or marker for the manifestation of other variables, and the focus falls on the temporal characteristics of the actors or activities/events. In general, temporal variables and constructs can vary in function of the conception of subjacent time, on the level of analysis and focus of investigation.

In fact, temporal variable/constructs can be supported by both the objective conception and the subjective conception of time. The duration of the tasks provides an enlightening example. On the one hand, it is possible to objectively assess duration (clock time). On the other hand, it is possible to inquire the professionals regarding their perception of the passage of time. This last type of study inserts itself in the line of research regarding temporal perception, that is, the form in which individuals learn/estimate the passage of time by means of their senses (Ancona, Okhuysen et al., 2001). In fact, there are reports by professionals in organizations on how "time flew" (e.g., in the experience of flow) or how "time dragged on" during a determined workday. Rhythm, sequence, and interval between activities are subjects that can be analyzed with an objective measure or with perceptions and experiences reported by professionals, depending on the objectives of each investigation.

Temporal variables/constructs vary equally in function of the different levels of analysis (individual, group, and organizational). An illustration of a typical construct at the individual level is temporal depth, the tendency of individual to concentrate in certain temporal "distances" (the extension of the future or the past) in thinking about events and making decisions (Shipp & Cole, 2015). At the group level, it is possible to underscore the shared temporal cognitive construct, conceived as the degree of team member congruence representations regarding the temporal aspects of collective tasks, such as deadlines, chronograms, and activity pace (Mohammed & Nadkarni, 2014).

In turn, organizational culture temporal norms constitute an example of construct at the organizational level. It refers to the norms and values that govern behavior and the relation of professionals to time in the organizations (Zellmer-Bruhn, Gibson, & Aldag, 2001). The way of establishing deadlines and chronograms, pacing style, punctuality, and the degree of autonomy in the use of time express manifestations of the temporal norms existent in a determined organization.

Besides the conception of subjacent time and the level of analysis, temporal variables/constructs retain different investigation foci or, rather, can value distinct aspects of the temporal phenomenon. Developing previous contributions (Ancona, Okhuysen et al., 2001; Chan, 2014; Shipp & Cole, 2015), this chapter proposes the existence of three basic investigation foci in order to confer greater comprehensibility and clarity to this field of study.

The first focus gathers variables/constructs that primarily broach the temporal characteristics of activities or events. The task duration, a previously cited variable, constitutes a basically intuitive illustration of this first focus. This variable can be analyzed based on the objective or subjective conception of time (temporal perception) on different organizational levels. In all scenarios, even in the case of temporal perception, the focus does not fall on a characteristic of the actors, but on an activity/event attribute.

The second focus incorporates variables/constructs that emphasize actor characteristics and experience in their relation to time. It includes variables based on the objective conception of time, such as individual punctuality and attendance or the group/organization workday rules. It also incorporates constructs inserted into the subjective conception of time, such as the temporal perspective, that is, the degree of attention or cognitive emphasis characteristically devoted by individuals in thinking of the past, present, and future (Zimbardo & Boyd, 1999). Temporal depth, shared temporal cognition, and temporal organization cultural norms, constructs previously cited, are also inserted in this second focus of the investigation.

The third focus involves variables/constructs that highlight the actor trajectory in the time. In practice, the second and third foci differ in that the third focus, instead of dealing with actor characteristics in their relation to time, reflects the eventual actor route and changes considered in their past, present, and future. Professional résumé and career planning, as well as the formal history of groups and organizations, are illustrated as the objective time conception can be applied in this focus. Narratives regarding the past and aspirations/expectations for the future, on the contrary, represent a subjective time conception in the analysis of actor trajectories.

In the chapter sequence, research on temporal pressure constructs, pacing style, and monochronicity/polychronicity will be described and their day-to-day implications in organizations debated. These constructs share some characteristics: (a) they broach the way actors deal with deadlines and the distribution of tasks in time, (b) are based on the subjective conception of time, (c) can be investigated in different levels of analysis, and (d) are tied to the second focus of investigation. They were selected in virtue of their practical relevance and their visceral connection with the contemporary discussion on the temporal acceleration of organizations, previously highlighted. The accent rests on evaluating how such constructs relate to variables critical to organizations, such as performance, work engagement, work satisfaction, and well-being at work.

11.2.1   Temporal Pressure

Feeling the pressure of a deadline is one of the most eloquent forms of perceiving the importance of time in organizations. In effect, a large part of employees, in consulting their list of tasks, work, and projects, experience the sensation that they will lack time to complete them. Literature has studied this experience by means of the

temporal pressure construct, defined as the perception that the time available to complete the task(s) seems to be insufficient and that a violation of the deadlines will end in undesirable consequences (Gevers, van Eerde, & Rutte, 2001; Rastegary & Landy, 1993). By focusing on perceptions, the construct is linked to the subjective conception of time.

It is possible to better understand temporal pressure by differentiating it from other construct: temporal urgency. This construct alludes to the individual's degree of concern with the passing of time, in a way that individuals with an elevated degree of temporal urgency are chronically in a hurry (Mohammed & Harrison, 2013). Temporal urgency is conceived as a relatively stable characteristic, manifesting itself in multiple situations in the life of the individual. On the other hand, temporal pressure does not reflect a long-term personal characteristic: it arises in specific situations where imposed external restrictions (notably the determination of a deadline) are perceived as worrying (Mohammed & Harrison, 2013).

11.2.1.1   Variables Related to Temporal Pressure

Literature regarding temporal pressure reveals that it does not appear to be decisively influenced by demographic variables. In recent studies, the relation of temporal pressure to gender, level of education, age, length of career, and number of children is inexistent or weak (Baer & Oldham, 2006; Höge, 2009; Kühnel, Sonnentag, & Bledow, 2012; Sonnentag, 2001).

On the other hand, there is robust evidence that associates temporal pressure and negative work experience. For example, several studies attest to temporal pressure as a consistent precursor to stress, burnout, and emotional exhaustion (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Rastegary & Landy, 1993; Schaufeli & Bakker, 2004; Zacher, Jimmieson, & Bordia, 2014). This view is illustrated in the work demands-resources model, which seeks to explain the emergence of burnout (Demerouti et al., 2001). This model typifies temporal pressure as one of the elements that can unleash exhaustion when the mental/physical effort is high and employees do not have the resources to deal with it (e.g., such a leadership support).

In the same frame, there are indications that temporal pressure is positively and moderately associated with irritation at work, family-work conflict, and psychosomatic complaints, such as nausea and headaches (Höge, 2009). Qualitative research also suggests that the effect of temporal pressure is not limited to stress and burnout, similarly including musculoskeletal disturbances (Fernandes, Assunção, & Carvalho, 2010).

Research indicates that the increase in temporal pressure adds negative work experiences; others show that high temporal pressure levels reduce positive work experiences. There is evidence that the variable reduces job satisfaction in sales personnel (Jones, Chonko, Rangarajan, & Roberts, 2007) and in civil construction workers (Zacher et al., 2014). Sonnentag (2001), in a daily follow-up study with teachers, noticed that the higher the temporal pressure at work, the less the indi-

vidual well-being (measured by affective states) on the evening of the same day. Kahneman, Krueger, Schkade, Schwarz, and Stone (2004), considering a sample of professionals from multiple organizations, indicated that the amount of positive affective episodes at work is significantly higher in the absence of temporal pressure than in its presence.

In contrast, the literature also contains evidence that temporal pressure can favor, in determined circumstances, work involvement. Schmitt, Ohly, and Kleespies (2015) found evidence of a curvilinear relation (in the form of ∩) between the variables. They highlight, however, that the existing involvement under moderate pressure levels is only sustained when the tasks are evaluated as reasonable and necessary by the professionals. In his part, Kühnel et al. (2012) informed that the relation between temporal pressure and work involvement seems to depend on control over work, understood as the ability of the professional to influence the execution and fulfillment of their tasks. When there is a high level of control, the temporal pressure favors involvement; when control is low, temporal pressure impairs involvement. At the group level, data arises that reinforces this understanding: groups working under temporal pressure present an increase in involvement when there is the collective perception of the effectiveness of performing the task (Salanova, Llorens, Cifre, Martínez, & Schaufeli, 2003).

The capacity of temporal pressure to tie itself to both negative and positive experiences finds backing in another investigation (Widmer, Semmer, Kälin, Jacobshagen, & Meier, 2012). These authors argue that temporal pressure is a challenge stressor or, rather, a work demand that, even though potentially stressing, can occasion benefits for the individuals. The collected data corroborates this understanding: temporal pressure positively associated itself to tension at work and organizational self-esteem (belief by individuals regarding their value to the organization). In this last case, the authors interpret that temporal pressure provides opportunities for individuals to show their competence and motivation. As such, in case the temporal pressure challenge is superseded, professional self-evaluation and self-esteem tends to go up.

Another set of investigations dedicated itself to clarify the link between temporal pressure and work performance. Rastegary and Landy (1993) point out that some studies in this area report an association between elevated levels of temporal pressure and high performance. This tendency is explained mainly in function of the role of motivation: the perception of the scarcity of time motivates individuals to work more intensely to meet the deadline.

However, these results appear to portray a partial and incomplete picture of the relation between temporal pressure and performance. This same review (Rastegary & Landy, 1993) exposes that, in the majority of cases, this relation tends to be curvilinear (in the form of ∩), such that very low levels or very high levels of pressure generate effects damaging to performance.

Furthermore, the effect of temporal pressure on performance appears to vary according to the type of task performed (Karau & Kelly, 2004). For example, Mohammed and Harrinson (2013), summarizing previous research, reinforce that temporal pressure situations appear to be refractory to tasks that demand creativity.

In these situations cognitive processing becomes excessively rapid, simplified, and shallow, inhibiting more complex formulations. In other words, the mind "closes" and convergent thinking prevails instead of exploratory thinking. Empirical studies suggest that elevated temporal pressure undermines the creative cognitive process and that high levels of creativity more easily arise in moderate pressure environments, where there is support for creativity (Amabile et al., 2002; Baer & Oldham, 2006).

Complexity in relation to temporal pressure-performance extends itself to the literature centered on the group analysis level. Such complexity is represented in the focus of attention model (Karau & Kelly, 2004), which establishes that the interaction between temporal pressure, task characteristics (e.g., its complexity), group structure (such as composition and cohesion), and individual differences (such as personality and abilities) determines the group focus of attention and, subsequently, its performance.

Empirical tests of this model corroborate that the effects of temporal pressure on group performance strongly depends on the characteristics of the tasks (Karau & Kelly, 2004). When the task is simple and there is clear and sufficient information, pressure can increase performance, with help from professionals to center attention on the task and use heuristics, and avoid procrastination and unnecessary discussions. When the task is complex, pressure tends to debilitate performance, since it reduces the communication time between members, reduces the set of information, and prematurely narrows the list of possible solutions. The authors also compiled evidence that supports the curvilinear relation (in the form of ∩) between the variables, which means that the optimum performance point is reached at the intermediary pressure point.

Besides the task characteristic, another temporal pressure-performance moderator received attention in the literature: the belief/perception that the group would be able to complete the task. Even though it was not previously seen in the focus of attention model, researchers tested the role of this variable with the constructs group potency (Gevers et al., 2001) and perceived collective efficacy (Salanova et al., 2003). Research shows that the performance of groups submitted to temporal pressure is particularly reduced when there are low levels of group potency or perceived collective efficacy.

11.2.1.2   Temporal Pressure: Practical Implications

The consulted research indicates practical implications for management. In this direction, intense and continuous experience of pressure in the work environment can unleash stress/burnout and threaten the health and well-being of the individuals. Team leaders and HR advisors should plan, distribute, and monitor activities seeking to minimize episodes of acute temporal pressure.

However, even the best planning and management practices are unable to entirely extinguish the unplanned and urgency in organizations. Consequently, elevated pressure situations will continue to exist, being then necessary to secure conditions and resources for professionals to deal with such scenarios. In elevated temporal pressure situations, individual control of work, leadership support, and collective

self-efficacy are resources that reduce the chance for burnout and provide involvement. Therefore, team leaders and HR professionals should supply individuals and teams with these resources.

Changing the prism to the temporal pressure-performance link, the literature delineates an intricate picture. The direct, linear, and positive impact of temporal pressure on performance, at time assumed by common sense, gives way to curvilinear relations and moderation effects. For most tasks, intermediate temporal pressure seems to lead professionals toward better performance. When the task is especially complex, creative solutions are more probable by reducing temporal pressure. When the task is quite simple, tighter deadlines and greater temporal pressure do not seem to negatively affect performance.

Considering what has been shown, it has been observed that team leaders should not indiscriminately intensify temporal pressure in the eagerness to increase productivity. Rather, the establishment of deadlines and the management of temporal pressure should respect the type of task requested and, above all, the well-being, health, and profile of the employees. Specifically regarding profile, it is worth retaking the discussion regarding temporal urgency cited at the beginning of the section. It is probably that the individuals with a high temporal urgency profile hold up better to temporal pressure, being, therefore, privileged candidates for the processes/projects with this characteristic. Such individuals constantly involve themselves in self-monitoring, routinely placing themselves under temporal pressure, a practice that tends to elevate their tolerance level.

11.2.2   Pacing Style

As with temporal pressure, the pacing style construct also explores the relation of individuals with deadlines in the work environment. However, pacing style focuses on how individuals temporally distribute their efforts considering the deadline established for the task (Gevers, Mohammed, & Baytalskaya, 2015; Gevers, Rutte, & van Eerde, 2006). The construct can reflect a subjective conception of time (Roe, 2006), when expressing the individual representation regarding the distribution of effort, as well as the objective conception of time (Shipp & Cole, 2015), when there is a precise measure of this distribution in days and hours. The subjective conception prevailed in the literature consulted.

In the course of developing the construct, some pacing styles were proposed in the literature (Gevers, Claessens, van Eerde, & Rutte, 2009; Gevers & Demerouti, 2013; Gevers et al., 2006). In the *early action* style, tasks are completed as quickly as possible, even before the deadline. The *constant action* style refers to professionals that perform the tasks in a relatively regular rhythm until the deadline. In the *deadline action* style, the professionals dedicated themselves only when the deadline was near, popularly known as "wait until the last minute." There is also the possibility that the actors adopt nonlinear styles. As such, the *U-shaped action* style reflects

peaks in effort at the beginning of the task and near the deadline. In contrast, in the *inverted-U action* style, the effort is concentrated in the middle of the task period.

Analyzing studies with employee samples, it was noted that the constant action, U-shaped action, and deadline action styles took turns in being the most frequent styles (Claessens, 2004; Gevers et al., 2009). In these studies, the U-shaped action style stood out slightly more than the others, being particularly more frequent in creative work with a multitask standard. Later study by the same group of researchers (Van Eerde, Beeftink, & Rutte, 2015) corroborated the elevated frequency of the U-shaped action style in creative work.

11.2.2.1 Variables Related to Pacing Styles

Antecedents, correlations, and consequences of pacing styles were verified in recent literature. In general, demographic variables (such as age, hierarchical level, and gender) and other temporal constructs (such as polychronicity and temporal perspective) manifested weak associations with pacing styles (Gevers & Demerouti, 2013; Gevers et al., 2015).

In general, professionals with the early action and constant action styles face activities in a planned way, avoid procrastination, employ time management mechanisms, and show a greater aversion to risk (Claessens, 2004; Gevers & Demerouti, 2013; Gevers et al., 2006, 2009, 2015). Empirical evidence also indicates that constant action workers sustain high levels of professional self-efficacy and early action workers relate to a high degree of time control perception (Claessens, 2004).

On the contrary, the deadline action style was associated with procrastination, less use of time management procedures, a greater risk tolerance, and optimism as to meeting deadlines (Claessens, 2004; Gevers & Demerouti, 2013; Gevers et al., 2006, 2009, 2015). These variables appear to be effectively interwoven. To the point that they are optimistic as to deadlines and tolerate the risk of not delivering their work, deadline action professionals become more likely to procrastinate and to dispense time management procedures.

Literature still lacks empirical investigation regarding pacing styles and health, well-being, and job satisfaction. However, researchers in the area consider that the rise in positive or negative work experiences depends on the level of congruence between the professional's style and the temporal characteristics of the project (Gevers et al., 2015). In this sense, deadline action professionals seem to be more comfortable with short and floating deadline projects, while constant actions professionals seem to be most accustomed to predictable projects and with incremental development.

Leadership performance in the face of these different styles shows itself to be equally important. Gevers and Demerouti (2013) show that reminders from leaders regarding deadlines generate greater absorption (dedication) from subordinates when said subordinates are inclined toward the deadline action style. This effect is not replicated in subordinates of the constant action or U-shaped styles. The authors also report that deadline action professionals, in virtue of their low investment in the self-regulation of time, tend to need a greater external influence (of the leader) to

dedicate themselves to the task. In the other two cited styles, self-regulation is higher and external influence becomes more superfluous. The authors point out that managerial discernment in the use of these management strategies resounds positively on professional well-being.

Other studies applied themselves to analyzing the relation of styles with individual job performance. Research performed in multiple organizations (Claessens, 2004) highlights that early action and constant action professionals outdo ∪-shaped and deadline action professionals both in performance self-evaluations and in evaluations performed by coworkers and supervisors. Also based on the sample from various organizations, Gevers et al. (2009) warn that the negative impact of the U-shaped style on performance (evaluated by coworkers/supervisors) is even more intense than in the case of the deadline action style. The authors interpret that individuals with a U-shaped style become frustrated more easily with the initial effort, such that their performance falls during execution of the activity.

The connection between pacing styles and performance was also the goal of a group-level analysis. In this line, groups oriented by the deadline action style showed greater difficulty to effectively meet their deadlines (Gevers et al., 2006). Furthermore, in these groups, the existence of shared temporal cognitions hampered deadline fulfillment. In effect, if the members of the group only act when the deadline approaches and if there is great congruence among them regarding the use of time, the tendency to procrastinate dominates the group. On the contrary, shared temporal cognitions benefit meeting the deadline in groups leaning toward early action.

Gevers et al. (2009) verified the performance of teams dedicated to engineering projects and relate that the best evaluated groups were those whose members tended toward the early action style. A diversity of styles presented a negative effect on the evaluation of teams that tended toward the early action style, however, caused a positive effect on teams with a deadline action style. This data suggests that in groups where early action dominated, the inclusion of individuals can generate negative consequences on performance. However, the inclusion of early action professionals in groups centered on the deadline action style can be beneficial to performance.

Mohammed and Nadkarni (2011) sophisticated the study of these relations in examining the role of leadership in managing the diversity of pacing styles. Their results support that such diversity occasions positive effects on group performance when supervisors exert temporal leadership or, rather, are able to effectively program, synchronize, and organize their team work time. On the other hand, poorly managed diversity tends to generate counterproductive conflicts.

11.2.2.2   Pacing Styles: Practical Implications

How does one manage in the face of distinct pacing styles? The first step refers to making professionals aware of their style. However, this process can be relatively difficult in some cases. There remains dissent regarding the stability of a pacing style throughout one's work life and regarding its rigidity in the face of different tasks/situations (Gevers et al., 2006, 2015). For example, a deadline action

individual may duly assume the typical early action style when it deals with tasks that are important to their career. As such, caution is necessary when identifying styles, being advisable to observe the eventual variations in style due to the function of the tasks performed and the context experienced.

Team leaders and HR professionals can help in the identification of team member styles based on their own experience in the work environment or by standardized instruments. In this last case, no questionnaires/scales adapted to Brazilian reality were found. It would be necessary to translate, adapt, and validate foreign instruments. Anyway, possessing information regarding the existing styles on their team, leaders should employ it in assigning professionals to projects and activities.

As a general tendency, the cited research suggests that the early action and constant action styles, at the individual or group level, produce better performance (product quality/services and meeting deadlines). However, the issue is more complex than simply preferring these professionals and relegating the remaining to ostracism. According to what was shown earlier, the diversity of styles can be advantageous to the group if it is well managed (Mohammed & Nadkarni, 2011). In addition, researches in this area, tied to previous research, recommend the merging of styles in groups responsible for complex projects (Mohammed & Harrison, 2013). Along this line, the initial tasks can be given to early action members, the continuous development activities to constant action members, and concluding tasks to deadline action members.

In this way, based on the actual stage of the literature, team leaders and HR professionals should pay attention to the congruence between team member pacing styles and designated tasks, seeking to increase individual performance and well-being. When congruence is not possible, it is possible to handle difficulties by means of management strategies. Leadership can provide support to perform tasks by periodically reminding deadline action professionals regarding the project deadline (Gevers & Demerouti, 2013). On the other hand, early action or constant action professionals require less supervision in this aspect. Anyway, the HR areas can provide training in time management to teach professionals and leaders how to deal with the eventual incongruities between styles and tasks.

11.2.3   Monochronicity and Polychronicity

Contemporary organizations, pressed by the productivity injunction, long for agility in the completion of tasks. Allied to technological advances, this pressure to work faster has redefined the relation of individuals with their activities, such that the execution of simultaneous tasks has become a common practice. It is precisely in this scenario that the discussion regarding monochronicity and polychronicity gains importance.

Originally conceived as a cultural-/societal-level construct, polychronicity has gained space in organizational studies, notably at the end of the 1990s. During this time, the construct refers to what extent individuals preferred to engage in two or more tasks simultaneously and believed that this preference was the best way to

perform activities (Bluedorn, Kalliath, Strube, & Martin, 1999). Gradually, litera-
ture came to privilege the first part of this definition (the preference in itself became
the core of the construct) and to research the construct on the individual and group
levels (Conte & Jacobs, 2003; Hecht & Allen, 2005; Jang & George, 2012; Slocombe
& Bluedorn, 1999).

In this way, actually, polychronicity expressed the actor preference to perform
two or more activities simultaneously, whereas monochronicity refers to the actor
preference to perform activities sequentially (one at a time), both figuring as
extremes of the same *continuum* (Slocombe & Bluedorn, 1999). With the sense of
refining the construct even more, König and Waller (2010) recommend the use of
the terms monochronicity/polychronicity to identify preferences, reserving the term
multitask for the behavioral aspect of polychronicity. In representing preferences,
one can say that monochronicity and polychronicity are founded in the subjective
conception of time.

11.2.3.1   Variables Related to Monochronicity and Polychronicity

Age and gender do not appear to influence individual polychronicity (Jang &
George, 2012). Similar data arose in Brazilian research on the theme (Lombardi,
2009), which also verified the lack of differences in polychronicity due to education
and civil status. Regarding the big five personality factors, König and Waller (2010)
show extroversion as the factor most solidly related to polychronicity.

König and Waller (2010) also highlight the role of work environment as an ante-
cedent to polychronicity. Organizational environments that demand a multitasking
behavior end up "selecting" polychronic individuals, because they tend to be suc-
cessful in these environments. In this sense, Lombardi (2009) determined that the
polychronicity of a company, assessed as an organizational cultural trait, figures as
a relevant antecedent to individual polychronicity in a sample of professionals in
several Brazilian organizations.

In contrast with the relatively small amount of research on antecedents, studies
on consequents are many in literature. For example, Jang and George (2012) estab-
lished that polychronicity related positively to work satisfaction in a sample of pro-
fessionals in the lodging sector. The same standard was discovered by Arndt, Arnold,
and Landry (2006) among retail sales personnel. In turn, a study held with Brazilian
shopping center shop managers indicated that most of the interviewed, even though
preferring a monochronic actuation, were aware of the multitasking standard of the
activity, generating dissatisfaction and work unhappiness (Paiva & Gonçalves,
2014). Considering a sample of professionals from different sectors, Hecht and
Allen (2005) showed that when opportunities to act in a polychromatic way at work
are incompatible with the level of individual polychronicity, work satisfaction was
negatively affected.

Together, this data suggests that work satisfaction occurs from the interaction
between the type of activity and the individual level of polychronicity. That is, higher
levels of job satisfaction were probable in a scenario with congruency between the

professional and the activity: polychronic professionals performing multitask work and monochronic professionals performing sequential activities. As, in organizational reality, there are cases of congruence and incongruence, the direct relation between polychronicity and job satisfaction tends to be inconsistent. In fact, the compilation by König and Waller (2010) reveals the inconsistency of this relation. In the six samples analyzed, two correlations were negative and not significant; one was positive, weak, and significant; and three were positive, moderate, and significant.

The interaction between polychronicity and type of activity seems to be equally relevant to the occurrence of other positive experiences at work, such as organizational self-esteem and affective well-being at work. Based on a sample of intermediate managers from different organizations, Hui, Lee, and Niu (2010) indicated that the polychronicity and variety of tasks interact in the prediction of organizational self-esteem, such that the concession of more varied tasks to polychronic individuals resulted in higher levels of organizational self-esteem. Also, on days with high multitask work demands, the affective well-being of polychronic individuals was less penalized than that of monochronic individuals (Kirchberg, Roe, & Van Eerde, 2015).

In the case of job satisfaction, the impact of polychronicity on performance also oscillated from research to research, raising the same attention for the role of individual-activity congruence. Conte and Jacobs (2003), investigating train engineers, registered the negative and significant relation between polychronicity and performance (evaluated by supervisors). On the other hand, positive associations were detected in performance self-evaluations and evaluations by third parties of sales professionals (Conte & Gintoft, 2005; Fournier, Weeks, Blocker, & Chonko, 2013), work that typically requires multitask behavior. In the three articles, the effects orbited at the limit that separates weak and moderate magnitude. Karatepe, Karadas, Azar, and Naderiadib (2013) also highlighted the positive effect of polychronicity in the hospitality sector; however, this effect was totally mediated by work involvement, given that it has difficulty establishing an unequivocal relation between the two first variables.

Such difficulty is well represented in the König and Waller (2010) review of the polychronicity-performance relation: the appreciation of the data from eight different samples of professionals revealed oscillations between $r = .23$ and $r = −.21$. The effects are not very expressive, and the extremes of distribution are almost diametrically opposed. In the same way as with job satisfaction, the discrepant results attest the need to refine the analyses regarding the association between polychronicity and performance.

First, this refinement goes through the importance of the individual-activity congruence, as highlighted by empirical studies previously cited (e.g., Fournier et al., 2013). Considering this reasoning valid, there are labor activities more favorable to monochronicity and others more adequate to polychronicity.

Secondly, it is worth observing the interference of another type of congruence: that of the individual with the group. Slocombe and Bluedorn (1999), with data collected from different organizations, indicated that the perception of professionals regarding how the partner/leader evaluates their performance was greater when the

levels of individual and group polychronicity were similar. As these levels distanced themselves (reducing the congruence), perception regarding performance evaluation given by the partner/leader became less favorable. In a complementary analysis, Mohammed and Nadkarni (2014) relate that monochronic/polychronic orientation diversity of individuals on teams related negatively to group performance. That is, in this research, the more heterogeneous groups in the polychronicity dimension presented lower group performance.

11.2.3.2 Monochronicity and Polychronicity: Practical Implications

The literature reveals that the organizational individual-activity, individual-group, and individual-culture congruencies in the polychronicity dimension are relevant to job satisfaction, organizational self-esteem, affective well-being, and performance. As a continuous act, the question arises: How does one reconcile individual, activity, and environment?

One of the initiatives deals with the process of recruitment and selection. By means of a prior analysis of the position characteristics, HR professionals and team leaders can define the desired profile for that position in the monochronicity/polychronicity *continuum* and consider it in the selective process. Such initiative represents low investment and great return potential (Arndt et al., 2006).

When dealing with already contracted individuals, each professional (including leaders) should identify the individual preference, the preferences of team members, and the job characteristics as to the levels of monochronicity/polychronicity. The Lombardi (2009) instrument, validated for Brazil with good psychometric indicators, can assist this diagnosis. Interviews with the professionals can also support this process.

Based on this diagnosis, the leader should match individuals and activities by means of task redistribution, reorganization/modification of the productive process, transfer of professionals to other sectors, or management of group conflicts. The intention is to reduce the incongruences, because these hold great conflict potential and can cause the reduction of performance and job satisfaction. The proposal to modify the professional monochronicity/polychronicity profile, by means of training, probably will face limitations, in such that the individual preferences are conceived more as personality traits than as states (Slocombe & Bluedorn, 1999).

In the contraction and relocation of professionals, it is worth observing that polychronic individuals are notably compatible with activities that involve creativity, problem resolution, and negotiation, since they retain the ability to consider multiple alternatives in a nonlinear way (Mohammed & Harrison, 2013). Monochronic individuals are especially compatible with more structured activities that do not demand concentrated attention and strict planning fulfillment. Effective personnel management allows the exploitation of inherent potentials in both profiles.

11.3   Final Considerations

Time figures as an essential dimension to perform work and to develop organizational life. This chapter has sought to sensitize WOP researchers, HR professionals, and team leaders regarding the relevance of considering time in the understanding and management of organizational phenomenon. The adoption of "temporal lenses" awakens a new vision of organizational dynamics (Ancona, Goodman et al., 2001), raising new questions, constructs, research models, and management practices.

Adopting such a perspective, this chapter placed temporal constructs in discussion that touched on the temporal acceleration that characterizes contemporary organizations. This scenario imposes challenges to the WOP area, for example, study the substantial changes in the professional-time-work relation and help organizations to conciliate well-being and performance (Caetano, 2012). Faced with these challenges, this chapter contributes to the WOP area in synthesizing the literature on temporal pressure, pacing styles, and monochronicity/polychronicity, supplying evidence capable of guiding organizational management.

In this sense, the data cited here can be of great value. In general lines, the research highlighted the complex relation between temporal constructs and important variables in the workplace (performance, work involvement, well-being, and job satisfaction), including the identification of curvilinear standards and moderator variables. In the three constructs, the congruence between individual temporal profiles and the activity arose as a key point, such that it deserves special attention by team leaders and HR professionals. Such congruence depends, firstly, on the identification of the individual temporal profile by means of standardized instruments, interviews, or behavioral observation. Next, leaders and HR professionals should consider such profiles in the allocation of workers in the distinct activities, projects, and organization sectors. Proceeding as such, it is possible to expect gains in worker performance and well-being, as long as the organizations pay attention to the curvilinear shape and the influence of moderator variables that modulate such relations.

Within the limitations of the chapter, it is underscored that other temporal constructs were not explored/detailed, such as temporal urgency, time management, and temporal perception, among others. Another limitation is the difficulty of presenting more evidence regarding some relations mentioned in the chapter, which is explained in large part by the vanguard condition of these constructs. At the heart, questions relative to time have not been completely incorporated into WOP research, especially due to insufficient theoretical production on the temporality in organizations, the methodological limitations to verify some phenomenon, and the weak dissemination of temporal constructs among academics (Ancona, Goodman et al., 2001).

The way individuals and groups deal with time is part of the organizational dynamic. In the establishment of a deadline for the most important project in the organization or in "break time," the relation with time holds a great richness of meanings. Highlighting this richness, the expectation is that this work contributes to the definite incorporation of time in the analysis and management of organizational phenomenon.

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