EDITORIAL



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New perspectives on time perspective and temporal focus

1 INTRODUCTION

Organizational behavior (OB) scholars maintain that the study of time is critical for the study of management (Ancona, Okhuysen, & Perlow, 2001; Bluedorn, 2002; Bluedorn & Denhardt, 1988; George & Jones, 2000; Mitchell & James, 2001). To better understand time-related individual and collective cognitions, attitudes, and behaviors, OB scholarship increasingly incorporates objective time-time measured by the clock or calendar (e.g., Zerubavel, 1985). This "fungible time" (Bluedorn, 2002) is unidirectional, homogeneous, and absolute (Ancona et al., 2001; Clark, 1985; Doob, 1971; McGrath & Rotchford, 1983; Schriber & Gutek, 1987; Shipp & Cole, 2015; Shipp & Fried, 2014; Sorokin & Merton, 1937). It emphasizes schedules, deadlines, punctuality, and also the synchronization of labor, coordination, speed, and pace (e.g., Bluedorn & Jaussi, 2008; Gersick, 1988; Gevers, Rutte, & Van Eerde, 2006; Waller, Conte, Gibson, & Carpenter, 2001; Waller, Zellmer-Bruhn, & Giambatista, 2002).

There is, however, a second type of time, subjective time-time as perceived and experienced by both individuals and collectives. Subjective time is cognitively cyclical, heterogeneous, and interpretive (Ancona et al., 2001; Fried & Slowik, 2004; George & Jones, 2000; McGrath & Rotchford, 1983: Shipp & Cole, 2015: Shipp & Fried, 2014). Due to the psychological and sociological elements of time that arise through "mental time travel" (e.g., Epstude & Peetz, 2012; Suddendorf & Corballis, 2007; Wheeler, Stuss, & Tulving, 1997), subjective time does not necessarily correspond with objective time (Ancona et al., 2001; McGrath & Rotchford, 1983).

A key concept characterizing subjective time is time perspective, reflecting "[t]he totality of the individual's views of his/her psychological future and psychological past existing at a given [objective] time" (Lewin, 1951, p. 75). Individual differences associated with time perspective are temporal focus, temporal depth, polychronicity, and pacing preference (Bluedorn, 2002; Mohammed & Harrison, 2013; Shipp, Edwards, & Lambert, 2009). Thus, time perspective represents how individuals think about and use time, much like a "temporal personality" (Ancona et al., 2001; Francis-Smythe & Robertson, 2003). These individual differences in cognitive engagement with time impact an array of work outcomes including well-being, decision making, motivation, and achievement (e.g., Drake, Duncan, Sutherland, Abernethy, & Henry, 2008; Lasane & Jones, 1999; Seijts, 1998; Shipp & Aeon, 2019; Stolarski & Matthews, 2016; Zhang & Howell, 2011; Zimbardo & Boyd, 1999).

The Special Issue convenes conceptual, empirical, and measurement scholarship related to the study of time perspective. Although we encouraged submissions using the seminal Zimbardo Time Perspective Inventory (Zimbardo & Boyd, 1999), we also sought submissions using other conceptualizations and measures (e.g., Temporal Focus Scale or TFS; Shipp et al., 2009). In the sections that follow, we first provide a brief overview of time perspective research to establish what is currently known about the concept. We then present articles from the Special Issue to highlight key contributions. We also offer a conceptual framework specifying concepts pertinent to an understanding of time perspective in the context of organizations and we make suggestions for future research based on the contributions of the Special Issue by identifying some important unanswered auestions.

WHAT IS TIME PERSPECTIVE?

The concept of time perspective emerged in psychology as a way to understand how individuals cognitively engage with time. Although introduced to the field by James (1890), Lewin (1943), and Murray (1938), the basic elements of time perspective—the perception and experience of past, present, and future—originally appeared in early works in philosophy (e.g., Aristotle, Heidegger, Husserl, and Kant) and subsequently in physics (e.g., Einstein and Newton). At the heart of these conceptualizations was a desire to understand how individuals subjectively experience and perceive time (e.g., Ornstein, 1969). These time perceptions were then applied in psychology to explain how individuals mentally time travel from the present moment to the retrospected past or anticipated future (Lewin, 1943).

As the concept of time perspective evolved in psychology and moved into the field of management, attention shifted to how national cultures value time (Ashkanasy, Gupta, Mayfield, & Trevor-Roberts, 2004; Kluckhohn & Strodtbeck, 1961; Levine, 1997; McGrath & Rotchford, 1983), including how values about time are modeled in childhood (Gjesme, 1979; McGrath & Tschan, 2004; Piaget, 1946; Trommsdorff, 1983). However, in the last few decades, the study of time perspective has moved beyond cultural conceptualizations to return to the individualistic Lewinian view. Thus, contemporary usage tends to portray time perspective as an "umbrella" concept reflecting individual differences related to time (Ancona et al., 2001).

The most influential work under this scholarly umbrella is the Zimbardo Time Perspective Inventory (ZTPI; Zimbardo & Boyd, 1999). As the first to establish a comprehensive measure of this individual difference, Zimbardo and Boyd demonstrated that time perspective is (a) multidimensional (i.e., past, present, and future), (b) affectively toned (e.g., past negative vs. past positive), and (c) related to many outcomes of interest such as well-being and achievement (McClelland, 1961; Raynor, 1969; Teahan, 1958). This type of time perspective¹ accounts for the propensity of individuals for mental time travel (Suddendorf & Corballis, 2007; Wheeler et al., 1997). Since this seminal article, other scholars have tested and refined the concept, extending it to research domains beyond psychology (e.g., OB) and offering alternative conceptualizations and measures related to temporal focus (Shipp et al., 2009), occupational future time perspective (Zacher & Frese, 2009), and consideration of future consequences (Strathman, Gleicher, Boninger, & Edwards, 1994).

To date, research on time perspective and temporal focus has raised several important issues. First, most studies pursue greater understanding of time perspective's typical correlates and outcomes. Empirical findings and recent reviews (e.g., Shipp, In press; Shipp & Aeon, 2019) indicate that higher past focus corresponds to more negative outcomes including negative affect, neuroticism, and anxiety whereas higher present focus corresponds to more positive outcomes including life satisfaction and core self-evaluations (e.g., Drake et al., 2008; Rush & Grouzet, 2012; Shipp et al., 2009; Zacher. 2014; Zimbardo & Boyd, 1999). That said, a present focus is a mixed blessing given that a stronger present focus also leads to increased procrastination, impulsivity, aggressiveness, and risk seeking (e.g., Ferrari & Díaz-Morales, 2007; Keough, Zimbardo, & Boyd, 1999; Nadkarni & Chen, 2014; Zimbardo & Boyd, 1999; Zimbardo, Keough, & Boyd, 1997). In contrast, a stronger future focus relates to conscientiousness, consideration of future consequences, planful behaviors, and professional achievement (e.g., Aspinwall, 2005; Ferrari & Diaz-Morales, 2007; Joireman, Sprott, & Spangenberg, 2005; Seijts, 1998; Shipp et al., 2009; Strathman et al., 1994, Zacher, 2014; Zimbardo & Boyd, 1999). At times, however, these beneficial outcomes of future focus are accompanied by increased levels of anxiety (Zimbardo & Boyd, 1999), which seems to originate in the perception of potential failure to achieve desired outcomes.

Beyond these main effects, we note that temporal focus may operate as a moderator. For example, Shipp et al. (2009) found that the temporal focus dimensions did not directly relate to job satisfaction, organizational commitment, or turnover intent. However, past focus strengthened the impact of job characteristics on turnover intent, whereas future focus strengthened the impact of job characteristics on job satisfaction and organizational commitment. Thus, temporal focus may operate by making certain elements of the past, present, and future more or less salient.

A second issue in the literature reflects the trait versus state aspect of time perspective and temporal focus. These concepts are generally portrayed as traits, reflecting the relatively stable tendency individuals display in how they think about past, present, and future (Bluedorn, 2002; Shipp et al., 2009; Zimbardo & Boyd, 1999). Nonetheless, scholars have recognized an additional state element of temporal focus, that is, how individuals think about past, present, or future *in a particular moment* (e.g., Cojuharenco, Patient, & Bashshur, 2011; Foo, Uy, & Baron, 2009; Rush & Grouzet, 2012). Time

perceptions as a state indicate that an individual's attention can fluctuate in a specific context due to situational cues (e.g., Thoms & Greenberger, 1995).

A third issue is whether temporal focus reflects a bias or orientation toward a specific time (past, present, or future) or whether it operates as a profile in which all three time periods matter. Most research to date analyzes each time period separately, often focusing on one time to the exclusion of others (e.g., Kooij, Kanfer, Betts, & Rudolph, 2018). Yet, in Zimbardo and Boyd's (1999) seminal work, the idea of "balance" emerged with the possibility of a tripartite profile. Further work suggested that the best outcomes are expected when individuals flexibly allocate their attention among all three time periods (Boniwell & Zimbardo, 2004). Consideration of a temporal focus profile has gained traction lately, with various methodological approaches applied to detect balance (e.g., Boniwell, Osin, Linley, & Ivanchenko, 2010; Cole, Andretta, & McKay, 2017; Stolarski, Bitner, & Zimbardo, 2011; Zhang, Howell, & Stolarski, 2013).

In the midst of these three ongoing conceptual and methodological debates, scholarship on time perspective has expanded in management, particularly in the field of OB. As such, this Special Issue seeks an account of the latest conceptual work and empirical findings in this intellectually exciting domain.

3 | ARTICLES IN THE SPECIAL ISSUE

In response to the need for more research on subjective time (e.g., Shipp & Cole, 2015), this Special Issue offers a set of insightful articles providing new views of time perspective and temporal focus. The first article by Briker, Walter, and Cole (2020) draws on temporal focus, leader-team fit, and theories of leader behavior to specify the leadership implications of a supervisor's temporal focus on the past. Using a sample of 84 supervisors and 296 team members, Briker and colleagues challenge the commonly held assumption that a past temporal focus invariably has negative consequences (e.g., passive leadership). In doing so, they shed light on the ways a supervisor's past temporal focus influences his or her leadership behavior. Briker and colleagues highlight why group or team context should be considered when studying the effects of the supervisor's past temporal focus. They note the consequences resulting from (in)congruence between the past temporal foci of the supervisor and the team. Specifically, a highly past-focused supervisor working with a less past-focused team will demonstrate more proactive leadership behavior. They conclude that the behavioral consequences of the supervisor's past temporal focus are more complex and multifaceted than prior research has recognized.

In the second article, Waller, Franklin, and Parcher (2020) address how balance in time perspective influences team adaptation in dynamic contexts. Using numerous examples from the literature on team dynamics, the authors suggest that task environment access, skill differentiation, and task interdependence are important team-level conditions that moderate the fit of team-level time perspective balance in dynamic environments. They suggest that, in distributed task

¹Note that the term "time perspective" was used by Zimbardo and Boyd (1999), whereas others have used different terms for the same concept such as temporal orientation (Holman & Silver, 1998) and temporal focus (Shipp et al., 2009).

environments, the most effective teams have high skill differentiation and low task interdependence, supported by members with various time perspectives. In contrast, in uniform task environments, the most effective teams have low skill differentiation and high task interdependence, supported by members with balanced time perspectives. With an organizing framework providing testable postulates, Waller and colleagues advise organizational scholars on how to incorporate theory and assessment regarding the degree of balance in time perspective in future research.

In the third article, Mohammed and Marhefka (2020) identify numerous conceptual, methodological, and measurement problems in the study of time perspective, including the present lack of consensus in its measurement. They critically gather available evidence regarding scale validity and develop recommendations for measurement. These authors conclude that "no one 'best' measure" exists. Instead, they advocate that the choice of scale should be based on specific research goals. For instance, they recommend the TFS (Shipp et al., 2009) when both strong validation evidence and brevity are required. For research questions with a more specific focus (e.g., exclusive attention to the future), they advise scales such as Consideration of Future Consequences (Strathman et al., 1994) or Occupational Future Time Perspective (Zacher & Frese, 2009). Last, they call for longitudinal research with attention to time frame, as changes in time perspective can occur across the life span (Kooij et al., 2018).

Finally, Efrat-Treister, Daniels, and Robinson (2020) investigate how temporal construal impacts employee perceptions of waiting as well as aggressive response tendencies following waiting. Here. time perspective is addressed by understanding temporal construal in its abstract (high construal) versus concrete (low construal) levels. These authors used a sample of 74 students (Study 1) and another of 75 students (Study 2) to better understand the wait time-aggressive response relationship by examining one's level of temporal construal. They find that when the construal level is lower (i.e., more concrete), the relationship between objective and perceived (subjective) wait time is weaker, as is the relationship between perceived wait time and aggressive tendencies. Their results highlight that when construal level is low, feelings of power are weaker and aggressive tendencies lower. This study is important for its link between construal level theory and psychological distance (with a direct link to time perspective; see Maglio, Trope, & Liberman, 2015) and response to delays.

4 | DIRECTIONS FOR FUTURE RESEARCH

The four papers in our Special Issue approach time perspective in distinct ways and, in doing so, shed light on the current scope and future potential of subjective time research in OB. Collectively, they underscore the inherent diversity in the operationalization of time perspective and its application to management. They also reveal a variety of future research directions. Based on what we did and did not see in these articles, we now propose new directions for future research.

4.1 | Toward a conceptual framework of time perspective in organizational research

In preparing this Special Issue, we became aware that distinct conceptual forms are threaded through theory and research on subjective time. Unfortunately, researchers often fail to specify the conceptual form they apply, even at times conflating trait and state-based forms. We advise scholars to pay careful attention to the operationalization of time perspective and temporal focus and specify whether individual traits and situational states apply (e.g., Foo et al., 2009; Kairys & Liniauskaite, 2015; Rush & Grouzet, 2012). The importance of the trait versus state distinction is noted by Efrat-Treister and colleagues (this issue). We further contend that the field needs in-depth reflection and better specification of how and when each aspect of time perspective pertains to the phenomenon studied (Thoms & Greenberger, 1995). To facilitate reflection and specification, we identify four forms of time perspective/temporal focus to help organizational scholars home in on how subjective time functions in the specific research context.

- 1. The *trait perspective* is the best established and characterizes a stable and enduring orientation toward time. Trait-based time perspective functions as a "temporal personality" (Ancona et al., 2001; Francis-Smythe & Robertson, 2003), in a manner similar to other stable predispositions that endure across settings and over time.
- 2. The situational state perspective arises in response to the role a person occupies (in the sense that Simon, 1997, describes) and through external cues shaping a person's attention in an ongoing way by virtue of his or her job, duties, or position. This conceptual form is largely driven by environmental forces and reflects a time perspective that is learned, rewarded, and socially supported. As organizational roles change, this situational state perspective is expected to evolve and change.
- 3. The extreme state perspective arises in response to highly salient but ephemeral contextual cues. These cues constitute episodic demands that can serve as stressors (e.g., threats or crises) or as sudden opportunities (e.g., windfalls). Threats and crises are known to truncate time perspective, giving rise to both a sense of urgency and short-termism. They can also induce response rigidity (Staw, Sandelands, & Dutton, 1981) unless preexisting routines are established to structure responses to such high demand situations. Where individuals and collectives are prepared to respond to crises by using established emergent routines or prior training, time perspective can even "slow down" in order to mindfully process emergent events, as in the case of high-reliability organizations (see Roberts & Rousseau, 1989). Time perspective based on extreme cues can also be shaped by predispositions (since high demand situations can involve ambiguity and uncertainty), which can trigger reliance on dominant responses.
- 4. The cohort time perspective is another relevant time perspective state. It arises in response to an individual's or a collective's life or career stage (younger employees vs. pre-retirees, new hires vs. veterans, etc.). A cohort-based time perspective is based on

expectations and experiences that are tied to movement through the phases of life (including career stages) and has been found to shape responses to work experiences (e.g., Bal, Jansen, Van Der Velde, de Lange, & Rousseau, 2010).

4.2 | Coming to consensus on the conceptualization of time perspective and temporal focus

We distinguished among various conceptualizations of time perspective and temporal focus above as a means of offering guidance in overcoming persistent inconsistencies in conceptualization and terminology. Whereas the general concept of temporal focus is conceptualized as a specific individual difference, the concept of time perspective has been used both as an individual difference (Zimbardo & Boyd, 1999) and as an overarching "umbrella" concept that reflects diverse temporal individual differences (e.g., Mohammed & Harrison, 2013), a point noted by both Ancona et al. (2001) and Shipp et al. (2009). Yet, over a decade later, no consensus has emerged regarding preferred terminology or concept definition (Mohammed & Marhefka, this issue; Shipp, In press; Waller and colleagues, this issue). This is a problem that goes beyond a simple difference in labeling. Scholars use the term "time perspective" to refer to many different concepts, undermining the theoretical precision needed to move forward. Importantly, since terminology impacts which articles emerge in literature searches, the proliferation of conceptualizations and imprecision in terminology can explain why meta-analyses have produced different results and overlooked certain measures altogether (Mohammed & Marhefka, this issue).

We recommend that future scholars specify the aspect of time perspective they wish to target and explicitly position their conceptual choice within the broader theoretical and empirical literature. OB scholars have an opportunity to discuss the characteristics, boundaries, and interconnections characterizing TP and TF, with the goal of greater clarity and more consistent definitions. In that regard, collecting qualitative data related to how and why these two concepts are similar or different can aid in building a broader knowledge based on psychological time.

Remedies to conceptual slippage are also found in our proposed framework and in the careful application of existing theory. Our framework calls attention to how organizational context shapes the relevance of specific conceptualizations of time perspective, including the three state-based notions of subjective time we identify. If we are talking about time perspective enacted in organizational roles or crises, situation-related forms (situation-specific time perspective versus episodic time perspective) are likely to apply. If the phenomena under study relate to life stages, a cohort-based perspective is highly relevant. Last, if issues pertain to sustained effects over time, trait-based indicators are likely to be most informative.

In addition, a theory-based approach could look to event system theory (Morgeson, Mitchell, & Liu, 2015) to explain how events predict stability versus change. Do novel situations cause individuals to

become more attuned to their trait predispositions (e.g., a future-focused person thinks even more about the future to predict uncertainty)? Or does novelty cause individuals to deviate from their traits to better match situational demands? For example, a future-focused person orienting more toward the present because the future is unknown. Clearly, more research is needed here.

Finally, the field needs longitudinal research to test the stability of time perspective and temporal focus. Research in OB is moving to designs with time-lagged or other-reported outcomes to avoid concerns about common method bias. We believe what is needed now are longitudinal panel studies with three or more waves of data designed to capture change (e.g., Chan, 1998; Ployhart & Vandenberg, 2010). These designs better address questions regarding state-like versus trait-like effects of time perspective (e.g., Witowska & Zajenkowski, 2019; Zajenkowski, Stolarski, Maciantowicz, Malesza, & Witowska, 2016), which has been an ongoing concern (e.g., Seijts, 1998; Shipp et al., 2009; Zimbardo & Boyd, 1999). Theoretically, life events (Holman & Silver, 2005) and aging (Carstensen, Isaacowitz, & Charles, 1999) can potentially lead to changes in time perspective, necessitating longitudinal studies to identify when and how this might occur. Last, we advise that scholars make greater use of laboratory or simulation studies to enrich our understanding of issues associated with time perspective.

4.3 | Explore the "dark side" of time perspective

Another direction for future research emerging from the Special Issue is a better exploration of the "dark side" (e.g., Zeigler-Hill & Marcus, 2016) of the seemingly positive aspects of time perspective. Efrat-Treister and colleagues demonstrated that, despite prior theory specifying positive effects from a high construal level (i.e., more abstract), abstract-construal individuals actually were more aggressive in response to waiting times. This finding opens fruitful future directions: Why does aggression (or other behaviors) differ when time is construed more abstractly (e.g., Maglio et al., 2015; Trope & Liberman, 2003, 2010)? In what ways does one's characteristic level of time perspective shape aggression under conditions of more abstract construal? Could the construal-aggression relationship reflect an imbalanced time perspective? We invite scholars to collect qualitative data on this aggressiveness-construal relationship and its connection to individual differences in time perspective. In a similar focus on the dark side of temporal focus, Briker and colleagues raise questions regarding the benefits of temporal focus fit. The authors found that, at high levels of past temporal focus fit, supervisors were more laissez-faire, which is generally found to be the least effective leadership behavior (e.g., Rabinovich & Morton, 2012). They found that leaders exhibited more helpful task and relationship behaviors when their own past focus was a misfit with that of the team they managed. However, Waller and colleagues demonstrated that fit does not necessarily need to be perfect in terms of temporal focus. In some instances, a supervisor may need to counterbalance a team with more or less of one particular temporal focus. These authors posed the

question: When should leaders have a balanced time perspective to fit the team, versus be more future-focused? Numerous questions from the dark side (and bright side) remain for future research.

4.4 | Combine other temporal differences with time perspective/temporal focus

Another fruitful area for future research is how time perspective and temporal focus relate to other temporal differences. The broad umbrella of time perspective includes other temporal differences such as polychronicity (e.g., Hall, 1983; Kaplan, 2009), time urgency (e.g., Conte, Landy, & Mathieu, 1995; Mohammed & Harrison, 2013), and pacing preference (Gevers et al., 2006). We advise scholars to become more intentional in examining the relationships among these characteristics. Mohammed and Harrison (2013) suggested that time urgency, time perspective, polychronicity, and pacing style form a profile of individual differences relevant for team performance. However. there are other important differences, such as temporal depth (e.g., Bluedorn & Ferris, 2004), that have yet to be explored in combination with time perspective (Mohammed & Marhefka, this issue; Waller and colleagues, this issue). Similarly, whereas affect was part of the ZTPI measure (Zimbardo & Boyd, 1999), recent work using the TFS (Shipp et al., 2009) separates the effects of temporal focus from time attitude. Future research can target the joint effects of these separate constructs.

Several related questions arise from the literature this Special Issue: How might relationships between temporal focus and outcomes depend upon the affect associated with a particular time period? Does temporal focus become an even stronger predictor of well-being and performance when attitudes toward the past or future are more positive? Are these relationships additive or interactive? Further, which other individual temporal differences relate to time perspective and temporal focus? For example, current temporal focus is positively related to a newly established concept entitled "synchrony preference"-the extent to which individuals are willing to adapt the pace and rhythm of their work to others in order to create synchrony (Leroy, Shipp, Blount, & Licht, 2015). Given today's highly competitive and turbulent organizational environments (e.g., Brown & Eisenhardt, 1997; D'Aveni, 1994), the ability to adapt one's work pace to others is important for facilitating group interactions. Given that presentfocused individuals seem to do so more easily (Leroy et al., 2015), what type of interventions may help individuals to adapt when they are not high in present focus?

Another temporal individual difference gaining momentum in the literature is mindfulness, a present-focused state of cognition. Some scholars have suggested that mindfulness is purely present focused (Dane, 2011), whereas others suggest that it also includes elements of acceptance and the absence of judgment (Brown & Ryan, 2003; Good et al., 2016; Kabat-Zinn, 2005). To date, little is known about how mindfulness relates to time perspective and temporal focus. If these are not the same constructs, how does mindfulness enhance temporal focus (or vice versa)? Do trait aspects of current temporal focus

predispose individuals to higher levels of mindfulness in any given moment? Might higher levels of past or future focus detract from such mindfulness in harmful ways? How can we reconcile the purported benefits of mindfulness as directing attention to the present moment (Good et al., 2016), given that other research identifies its detriments (Hafenbrack, 2017), or advocates the benefits of a balanced time perspective (e.g., Boniwell et al., 2010; Zimbardo & Boyd, 2008; Waller and colleagues, this issue)?

4.5 | Integrate time perspective into other OB research domains

We recommend that future research take the concept of time perspective into other well-established research domains. For example, an important key to building and maintaining employee motivation is the acknowledgment of employees' value to the organization (e.g., through benefits, compensation, and career opportunities; Rousseau, 1997). Seginer and Lens (2015, p. 288) echo Nuttin's (1985) seminal work by insisting that future time perspective is a cognitive-motivational concept. In that regard, Nuttin (1985) explained that "the process through which the content of a subject's future time has an impact on present behavior is to be identified with the motivational process by which goals and means-end structures regulate behavior" (p. 36). Thus, a major research need involves the investigation of how rewards influence employees with future time perspectives as opposed to those less focused on the future (Bal et al., 2010). For example, do employees with future time perspectives become more motivated by intrinsic rewards or do extrinsic rewards also play a role that adversely affect their intrinsic motivation and performance (e.g., Lasane & Jones, 1999)?

Relatedly, we need to better understand the relationship among time perspective, goal setting, and performance (e.g., Fried, Grant, Levi, Hadani, & Slowik, 2007; Fried & Slowik, 2004; Locke & Latham, 1990, 2002). An important future direction centers on determining whether and how goal difficulty enhances or impedes present and future time perspective and its potential performance effects. What are the personal strategies (if any) that individuals implement to ensure that their time perspective, goals, and performance are aligned? Related to goal setting is how time perspective influences individual career dynamics in terms of planning and achieving personal goals. A particular direction for future research is how time perception and time perspective influence responses to current career stages and future career goals (Bal et al., 2010; Fried et al., 2007).

Further, as noted by Briker and colleagues (2000) and Waller and colleagues (2000), the relational aspects of time perspective in leader relationships need to be better understood. Such relational questions also extend to the temporal focus profiles of peers. To our knowledge, social network analysis (e.g., Wasserman & Faust, 1994) has not been used to account for the dispersion of time perspective within a group or team. How leader and coworker time perspectives influence each other, particularly state aspects, is unexamined and remains a future research opportunity.

Finally, we suspect that information processing and organizational learning could benefit from considering time perspective and temporal focus. Time perspective can influence how individuals (a) scan and search for information and (b) cognitively associate information (e.g., Tang, Kacmar, & Busenitz, 2012). We anticipate that individuals with certain time perspectives (e.g., present or future) may scan and search for more information and make more innovative cognitive associations (e.g., Isen, 2000). By integrating time perspective into differences in information scanning and search (e.g., information type and information sources) and cognitive association (e.g., individual and collective thinking, analogies, and metaphors; e.g., Cornelissen & Clarke, 2010), scholars may better understand how individuals learn and change over time, both of which are clearly important organizational goals.

5 | CONCLUSION

As evidenced by the articles in this Special Issue and our recommendations for future research, the time is ripe for research on temporal focus and time perspective. We advocate that OB scholars move beyond clock time to investigate manifestations of subjective time including time perspective and temporal focus in their many conceptual forms. Because the experience and perception of time differs within and between individuals (e.g., Rousseau & Fried, 2001; Shipp & Fried, 2014), investigation of subjective time offers insight into how individuals and collectives make sense of their work experiences. OB research will be enriched by the inclusion of the person-centered temporal considerations that we have shared with all colleagues interested in this exciting domain of knowledge.

KEYWORDS

psychological time, temporal focus, time perspective

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REFERENCES

- Ancona, D. G., Okhuysen, G. A., & Perlow, L. A. (2001). Taking time to integrate temporal research. Academy of Management Review, 26, 512–529. https://doi.org/10.5465/amr.2001.5393887
- Ashkanasy, N., Gupta, V., Mayfield, M. S., & Trevor-Roberts, E. (2004). Future orientation. In R. J. House, P. J. Hanges, M. Javidan, P. W. Dorfman, & V. Gupta (Eds.), *Culture, leadership, and organizations:* The GLOBE study of 62 societies (pp. 282–342). Thousand Oaks, CA: Sage.
- Aspinwall, L. G. (2005). The psychology of future-oriented thinking: From achievement to proactive coping, adaptation, and aging. *Motivation and Emotion*, 29, 203–235. https://doi.org/10.1007/s11031-006-9013-1
- Bal, P. M., Jansen, P. G., Van Der Velde, M. E., de Lange, A. H., & Rousseau, D. M. (2010). The role of future time perspective in psychological contracts: A study among older workers. *Journal of Vocational Behavior*, 76, 474–486. https://doi.org/10.1016/j.jvb.2010. 01.002
- Bluedorn, A. (2002). The human organization of time: Temporal realities and experience. Stanford, CA: Stanford University Press.
- Bluedorn, A. C., & Denhardt, R. B. (1988). Time and organizations. *Journal of Management*, 14, 299–320. https://doi.org/10.1177/014920638801400209
- Bluedorn, A. C., & Ferris, S. P. (2004). Temporal depth, age, and organizational performance. In C. F. Epstein, & A. L. Kalleberg (Eds.), Fighting for time: Shifting boundaries of work and social life (pp. 113–149). New York: Russell Sage Foundation.
- Bluedorn, A. C., & Jaussi, K. S. (2008). Leaders, followers, and time. *The Leadership Quarterly*, 19, 654–668. https://doi.org/10.1016/j.leaqua. 2008.09.006
- Boniwell, I., Osin, E., Linley, P. A., & Ivanchenko, G. V. (2010). A question of balance: Time perspective and well-being in British and Russian samples. *Journal of Positive Psychology*, 5, 24–40. https://doi.org/ 10.1080/17439760903271181
- Boniwell, I., & Zimbardo, P. G. (2004). Balancing time perspective in pursuit of optimal functioning. In P. A. Linley, & S. Joseph (Eds.), *Positive psychology in practice* (pp. 165–178). Hoboken, NJ: Wiley.
- Briker, R., Walter, F., & Cole, M. S. (2020). The consequences of (not) seeing eye-to-eye about the past: The role of supervisor-team fit in past temporal focus for supervisors' leadership behavior. *Journal of Organizational Behavior*, 41, 248–266. https://doi.org/10.1002/job. 2416
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84, 822–848. https://doi.org/10.1037/0022-3514.84.4.822
- Brown, S. L., & Eisenhardt, K. M. (1997). The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Administrative Science Quarterly*, 42, 1–34. https://doi.org/10.2307/2393807
- Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously: A theory of socioemotional selectivity. *American Psychologist*, 54, 165–181. https://doi.org/10.1037/0003-066X.54.3.165
- Chan, D. (1998). The conceptualization and analysis of change over time:

 An integrative approach incorporating longitudinal mean and covariance structures analysis (LMACS) and multiple indicator latent growth modeling (MLGM). Organizational Research Methods, 1, 421–483. https://doi.org/10.1177/109442819814004

- Clark, P. (1985). A review of the theories of time and structure for organizational sociology. In S. B. Bacharach, & S. M. Mitchell (Eds.), Research in the sociology of organizations (pp. 35–79). Greenwich, CT: JAI Press.
- Cojuharenco, I., Patient, D., & Bashshur, M. R. (2011). Seeing the "forest" or the "trees" of organizational justice: Effects of temporal perspective on employee concerns about unfair treatment at work. *Organizational Behavior and Human Decision Processes*, 116, 17–31. https://doi.org/10.1016/j.obhdp.2011.05.008
- Cole, J. C., Andretta, J. R., & McKay, M. T. (2017). An exploratory examination of the viability and meaningfulness of time attitudes profiles in adults. *Personality and Individual Differences*, 106, 146–151. https://doi.org/ 10.1016/j.paid.2016.10.046
- Conte, J. M., Landy, F. J., & Mathieu, J. E. (1995). Time urgency: Conceptual and construct development. *Journal of Applied Psychology*, 80, 178–185. https://doi.org/10.1037/0021-9010.80.1.178
- Cornelissen, J. P., & Clarke, J. S. (2010). Imagining and rationalizing opportunities: Inductive reasoning and the creation and justification of new ventures. Academy of Management Review, 35, 539–557. https://doi.org/10.5465/amr.35.4.zok539
- Dane, E. (2011). Paying attention to mindfulness and its effects on task performance in the workplace. *Journal of Management*, 37, 997–1018. https://doi.org/10.1177/0149206310367948
- D'Aveni, R. A. (1994). Hypercompetition: Managing the dynamics of strategic maneuvering. New York: Free Press.
- Doob, L. W. (1971). Patterning of time. New Haven, CT: Yale University Press.
 Drake, L., Duncan, E., Sutherland, F., Abernethy, C., & Henry, C. (2008).
 Time perspective and correlates of wellbeing. Time and Society, 17, 47–61. https://doi.org/10.1177/0961463X07086304
- Efrat-Treister, D., Daniels, M. A., & Robinson, S. L. (2020). Putting time in perspective: How and why construal level buffers the relationship between wait time and aggressive tendencies. *Journal of Organizational Behavior*, 41, 294–309. https://doi.org/10.1002/job.2433
- Epstude, K., & Peetz, J. (2012). Mental time travel: A conceptual overview of social psychological perspectives on a fundamental human capacity. *European Journal of Social Psychology*, 42, 269–275. https://doi.org/10.1002/ejsp.1867
- Ferrari, J. R., & Díaz-Morales, J. F. (2007). Procrastination: Different time orientations reflect different motives. *Journal of Research in Personality*, 41, 707–714. https://doi.org/10.1016/j.jrp.2006.06.006
- Foo, M. D., Uy, M. A., & Baron, R. A. (2009). How do feelings influence effort? An empirical study of entrepreneurs' affect and venture effort. *Journal of Applied Psychology*, 94, 1086–1094. https://doi.org/10.1037/a0015599
- Francis-Smythe, J. A., & Robertson, I. T. (2003). The importance of time congruity in the organisation. *Applied Psychology*, *52*, 298–321. https://doi.org/10.1111/1464-0597.00136
- Fried, Y., Grant, A. M., Levi, A. S., Hadani, M., & Slowik, L. H. (2007). Job design in temporal context: A career dynamics perspective. *Journal of Organizational Behavior*, 28, 911–927. https://doi.org/10.1002/job.486
- Fried, Y., & Slowik, L. H. (2004). Enriching goal-setting theory with time:

 An integrated approach. *Academy of Management Review*, 29, 404–422. https://doi.org/10.5465/AMR.2004.13670973
- George, J. M., & Jones, G. R. (2000). The role of time in theory and theory building. *Journal of Management*, 26, 657–684. https://doi.org/ 10.1177/014920630002600404
- Gersick, C. J. G. (1988). Time and transition in work teams: Toward a new model of group development. Academy of Management Journal, 31, 9-41. https://doi.org/10.5465/256496
- Gevers, J. M. P., Rutte, C. G., & Van Eerde, W. (2006). Meeting deadlines in work groups: Implicit and explicit mechanisms. Applied Psychology. An International Review, 55, 52–72. https://doi.org/10.1111/j.1464-0597. 2006.00228.x
- Gjesme, T. (1979). Future time orientation as a function of achievement motives, ability, delay of gratification, and sex. *Journal of Psychology*, 101, 173–188. https://doi.org/10.1080/00223980.1979.9915069

- Good, D. J., Lyddy, C. J., Glomb, T. M., Bono, J. E., Brown, K. W., Duffy, M. K., ... Lazar, S. W. (2016). Contemplating mindfulness at work: An integrative review. *Journal of Management*, 42, 114–142. https://doi.org/10.1177/0149206315617003
- Hafenbrack, A. C. (2017). Mindfulness meditation as an on-the-spot workplace intervention. *Journal of Business Research*, 75, 118–129. https://doi.org/10.1016/j.jbusres.2017.01.017
- Hall, E. T. (1983). The dance of life: The other dimension of time. Garden City, NY: Anchor Press.
- Holman, E. A., & Silver, R. C. (1998). Getting "stuck" in the past: Temporal orientation and coping with trauma. *Journal of Personality and Social Psychology*, 74, 1146–1163. https://doi.org/10.1037/0022-3514.74. 5 1146
- Holman, E. A., & Silver, R. C. (2005). Future-oriented thinking and adjustment in a nationwide longitudinal study following the September 11th terrorist attacks. *Motivation and Emotion*, 29, 389–410. https://doi.org/10.1007/s11031-006-9018-9
- Isen, A. M. (2000). Positive affect and decision making. In M. Lewis, & J. M. Haviland-Jones (Eds.), Handbook of emotions (pp. 417–435). New York: Guilford Press.
- James, W. (1890). The principles of psychology. New York: Dover Publications.
 Joireman, J., Sprott, D. E., & Spangenberg, E. R. (2005). Fiscal responsibility and the consideration of future consequences. Personality and Individual Differences, 39, 1159–1168. https://doi.org/10.1016/j.paid.
- Kabat-Zinn, J. (2005). Coming to our senses. New York: Hyperion.
- Kairys, A., & Liniauskaite, A. (2015). Time perspective and personality. In M. Stolarski, N. Fieulaine, & W. van Beek (Eds.), *Time perspective theory; review, research and application: Essays in honor of Philip G. Zimbardo* (pp. 99–113). Cham, Switzerland: Springer.
- Kaplan, S. (2009). Polychronicity in work teams: A theoretical examination of antecedents and consequences. In R. A. Roe, M. J. Waller, & S. R. Clegg (Eds.), *Time in organizational research* (pp. 103–126). London, UK: Routledge.
- Keough, K. A., Zimbardo, P. G., & Boyd, J. N. (1999). Who's smoking, drinking, and using drugs? Time perspective as a predictor of substance use. *Basic and Applied Social Psychology*, 21, 149–164. https://doi.org/10.1207/S15324834BA210207
- Kluckhohn, F. R., & Strodtbeck, F. L. (1961). Variations in value orientations. Evanston, IL: Row, Peterson and Company.
- Kooij, D. T., Kanfer, R., Betts, M., & Rudolph, C. W. (2018). Future time perspective: A systematic review and meta-analysis. *Journal of Applied Psychology*, 103, 867–893. https://doi.org/10.1037/apl0000306
- Lasane, T. P., & Jones, J. M. (1999). Temporal orientation and academic goal-setting: The mediating properties of a motivational self. *Journal of Social Behavior and Personality*, 14, 31–44.
- Leroy, S., Shipp, A. J., Blount, S., & Licht, J. G. (2015). Synchrony preference: Why some people go with the flow and some don't. *Personnel Psychology*, 68, 759–809. https://doi.org/10.1111/peps.12093
- Levine, R. (1997). A geography of time: The temporal misadventures of a social psychologist, or how every culture keeps time just a little bit differently. New York: Basic Books.
- Lewin, K. (1943). Defining the 'field at a given time'. *Psychological Review*, 50, 292–310. https://doi.org/10.1037/h0062738
- Lewin, K. (1951). Field theory in the social sciences: Selected theoretical papers. New York: Harper.
- Locke, E. A., & Latham, G. P. (1990). A theory of goal setting & task performance. Englewood Cliffs, NJ: Prentice-Hall.
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57, 705–717. https://psycnet.apa.org/doi/10.1037/0003-066X.57.9.705
- Maglio, S. J., Trope, Y., & Liberman, N. (2015). From time perspective to psychological distance (and back). In M. Stolarski, N. Fieulaine, & W. van Beek (Eds.), *Time perspective theory; review, research and*

- application. Essays in honor of Philip G. Zimbardo (pp. 143–154). Cham, Switzerland: Springer.
- McClelland, D. C. (1961). The achieving society. New York: The Free Press.
- McGrath, J. E., & Rotchford, N. L. (1983). Time and behavior in organizations. In L. L. Cummings, & B. M. Staw (Eds.), Research in organizational behavior (pp. 57–101). Greenwich, CT: JAI Press.
- McGrath, J. E., & Tschan, F. (2004). Temporal matters in social psychology: Examining the role of time in the lives of groups and individuals. Washington, DC: American Psychological Association.
- Mitchell, T. R., & James, L. R. (2001). Building better theory: Time and the specification of when things happen. *Academy of Management Review*, 26, 530–547. https://doi.org/10.5465/amr.2001.5393889
- Mohammed, S., & Harrison, D. A. (2013). The clocks that time us are not the same: A theory of temporal diversity, task characteristics, and performance in teams. Organizational Behavior and Human Decision Processes, 122, 244–256. https://doi.org/10.1016/j.obhdp.2013.08.004
- Mohammed, S., & Marhefka, J. T. (2020). How have we, do we, and will we measure timeperspective? A review of methodological and measurement issues. *Journal of Organizational Behavior*, 41, 280–297. https://doi.org/10.1002/job.2414
- Morgeson, F. P., Mitchell, T. R., & Liu, D. (2015). Event system theory: An event-oriented approach to the organizational sciences. Academy of Management Review, 40, 515-537. https://doi.org/10.5465/amr. 2012.0099
- Murray, H. A. (1938). *Explorations in personality*. New York: Oxford University Press.
- Nadkarni, S., & Chen, J. (2014). Bridging yesterday, today, and tomorrow: CEO temporal focus, environmental dynamism, and rate of new product introduction. Academy of Management Journal, 57, 1810–1833. https://doi.org/10.5465/amj.2011.0401
- Nuttin, J. (1985). Future time perspective and motivation: Theory and research method. Leuven, Belgium: Leuven University Press and Lawrence Erlbaum Associates.
- Ornstein, R. E. (1969). On the experience of time. Harmondsworth, UK: Penguin Books.
- Piaget, J. (1946). Le développement de la notion de temps chez l'enfant. Paris: Presses Universitaires de France.
- Ployhart, R. E., & Vandenberg, R. J. (2010). Longitudinal research: The theory, design, and analysis of change. *Journal of Management*, *36*, 94–120. https://doi.org/10.1177/0149206309352110
- Rabinovich, A., & Morton, T. A. (2012). Ghosts of the past and dreams of the future: The impact of temporal focus on responses to contextual ingroup devaluation. *Personality and Social Psychology Bulletin*, 38, 397–410. https://doi.org/10.1177/0146167211427307
- Raynor, J. O. (1969). Future orientation and motivation of immediate activity: An elaboration of the theory of achievement motivation. *Psychological Review*, 76, 606–610. https://doi.org/10.1037/h0028291
- Roberts, K. H., & Rousseau, D. M. (1989). Research in nearly failure-free, high-reliability organizations: Having the bubble. *IEEE Transactions on Engineering Management*, 36, 132–139. https://doi.org/10.1109/ 17.18830
- Rousseau, D. M. (1997). Organizational behavior in the new organizational era. *Annual Review of Psychology*, 48, 515–546. https://doi.org/10.1146/annurev.psych.48.1.515
- Rousseau, D. M., & Fried, Y. (2001). Location, location, location: Contextualizing organizational research. *Journal of Organizational Behavior*, 22, 1–13. https://doi.org/10.1002/job.78
- Rush, J., & Grouzet, F. M. (2012). It is about time: Daily relationships between temporal perspective and well-being. *Journal of Positive Psychology*, 7, 427–442. https://doi.org/10.1080/17439760.2012. 713504
- Schriber, J. B., & Gutek, B. A. (1987). Some time dimensions of work: Measurement of an underlying aspect of organization culture. *Journal of Applied Psychology*, 72, 642–650. https://doi.org/10.1037/0021-9010. 72.4.642

- Seginer, R., & Lens, W. (2015). The motivational properties of future time perspective future orientation: Different approaches, different cultures. In M. Stolarski, N. Fieulaine, & W. van Beek (Eds.), *Time perspective theory; review, research and application: Essays in honor of Philip G. Zimbardo* (pp. 287–304). Cham, Switzerland: Springer.
- Seijts, G. H. (1998). The importance of future time perspective in theories of work motivation. *Journal of Psychology*, 132, 154–168. https://doi. org/10.1080/00223989809599156
- Shipp, A. J. (In press). Temporal focus: A review of the past with an eye to the future. In F. Grouzet (Ed.), Oxford Handbook of Psychology of Time Travel and Temporality. Oxford University Press: Oxford, UK. https://doi.org/10.1093/oxfordhb/9780190256685.013.9
- Shipp, A. J., & Aeon, B. (2019). Temporal focus: Thinking about the past, present, and future. *Current Opinion in Psychology*, 26, 37–43. https://doi.org/10.1016/j.copsyc.2018.04.005
- Shipp, A. J., & Cole, M. S. (2015). Time in individual-level organizational studies: What is it, how is it used, and why isn't it exploited more often? Annual Review of Organizational Psychology and Organizational Behavior, 2, 237–260. https://doi.org/10.1146/annurev-orgpsych-032414-111245
- Shipp, A. J., Edwards, J. R., & Lambert, L. S. (2009). Conceptualization and measurement of temporal focus: The subjective experience of the past, present, and future. Organizational Behavior and Human Decision Processes, 110, 1–22. https://doi.org/10.1016/j.obhdp.2009.05.001
- Shipp, A. J., & Fried, Y. (2014). Time research in management: Using temporal ambassadors to translate ideas into reality. In A. J. Shipp, & Y. Fried (Eds.), *Time and work*, 1 (pp. 1–10). East Sussex, UK: Psychology Press.
- Simon, H. A. (1997). Administrative behavior: A study of decision-making processes in administrative organizations. New York: Free Press.
- Sorokin, P. A., & Merton, R. K. (1937). Social time: A methodological and functional analysis. American Journal of Sociology, 42, 615–629. https://doi.org/10.1086/217540
- Staw, B. M., Sandelands, L. E., & Dutton, J. E. (1981). Threat rigidity effects in organizational behavior: A multilevel analysis. *Administrative Science Quarterly*, 26, 501–524. https://doi.org/10.2307/2392337
- Stolarski, M., Bitner, J., & Zimbardo, P. G. (2011). Time perspective, emotional intelligence and discounting of delayed awards. *Time & Society*, 20, 346–363. https://doi.org/10.1177/0961463X11414296
- Stolarski, M., & Matthews, G. (2016). Time perspectives predict mood states and satisfaction with life over and above personality. *Current Psychology*, 35, 516–526. https://doi.org/10.1007/s12144-016-9515-2
- Strathman, A., Gleicher, F., Boninger, D., & Edwards, C. (1994). The consideration of future consequences: Weighting immediate and distant outcomes of behavior. *Journal of Personality and Social Psychology*, 66, 742–752. https://doi.org/10.1037/0022-3514.66.4.742
- Suddendorf, T., & Corballis, M. C. (2007). The evolution of foresight: What is mental time travel, and is it unique to humans? *Behavioral and Brain Sciences*, 30, 299–313. https://doi.org/10.1017/S0140525X07001975
- Tang, J., Kacmar, K. M., & Busenitz, L. W. (2012). Entrepreneurial alertness in the pursuit of new opportunities. *Journal of Business Venturing*, 27, 77–94. https://doi.org/10.1016/j.jbusvent.2010.07.001
- Teahan, J. E. (1958). Future time perspective, optimism, and academic achievement. *Journal of Abnormal and Social Psychology*, 57, 379–380. https://doi.org/10.1037/h0042296
- Thoms, P., & Greenberger, D. B. (1995). The relationship between leadership and time orientation. *Journal of Management Inquiry*, 4, 272–292. https://doi.org/10.1177/105649269543009
- Trommsdorff, G. (1983). Future orientation and socialization. *International Journal of Psychology*, 18, 381–406. https://doi.org/10.1080/00207598308247489
- Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review*, 110, 403–421. https://doi.org/10.1037/0033-295X.110.3.403
- Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. Psychological Review, 117, 440–463. https://doi.org/ 10.1037/a0018963

- Waller, M. J., Conte, J. M., Gibson, C. B., & Carpenter, M. A. (2001). The effect of individual perceptions of deadlines on team performance. Academy of Management Review, 26, 586–600. https://doi.org/ 10.5465/amr.2001.5393894
- Waller, M. J., Franklin, A. E., & Parcher, D. B. (2020). Time perspective balance and team adaptation in dynamic task contexts. *Journal of Organizational Behavior*, 41, 267–279. https://doi.org/10.1002/job.2431
- Waller, M. J., Zellmer-Bruhn, M. E., & Giambatista, R. C. (2002). Watching the clock: Group pacing behavior under dynamic deadlines. *Academy* of *Management Journal*, 45, 1048–1055. https://doi.org/10.5465/ 3069329
- Wasserman, S., & Faust, K. (1994). Social network analysis: Methods and applications. New York: Cambridge University Press.
- Wheeler, M. A., Stuss, D. T., & Tulving, E. (1997). Toward a theory of episodic memory: The frontal lobes and autonoetic consciousness. *Psychological Bulletin*, 121, 331–354. https://doi.org/10.1037/ 0033-2909.121.3.331
- Witowska, J., & Zajenkowski, M. (2019). How is perception of time associated with cognitive functioning? The relationship between time perspective and executive control. *Time & Society*, 28, 1124–1147. https://doi.org/10.1177/0961463X18763693
- Zacher, H. (2014). Individual difference predictors of change in career adaptability over time. *Journal of Vocational Behavior*, 84, 188–198. https://doi.org/10.1016/j.jvb.2014.01.001
- Zacher, H., & Frese, M. (2009). Remaining time and opportunities at work: Relationships between age, work characteristics, and occupational future time perspective. *Psychology and Aging*, 24, 487–493. https://doi.org/10.1037/a0015425
- Zajenkowski, M., Stolarski, M., Maciantowicz, O., Malesza, M., & Witowska, J. (2016). Time to be smart: Uncovering a complex interplay between intelligence and time perspectives. *Intelligence*, 58, 1–9. https://doi.org/10.1016/j.intell.2016.06.002
- Zeigler-Hill, V., & Marcus, D. K. (2016). (Eds.)). The dark side of personality: Science and practice in social, personality, and clinical psychology. Washington, DC: American Psychological Association.
- Zerubavel, E. (1985). Hidden rhythms: Schedules and calendars in social life. Berkeley, CA: University of California Press.
- Zhang, J. W., & Howell, R. T. (2011). Do time perspectives predict unique variance in life satisfaction beyond personality traits? *Personality and Individual Differences*, 50, 1261–1266. https://doi.org/10.1016/j.paid. 2011.02.021
- Zhang, J. W., Howell, R. T., & Stolarski, M. (2013). Comparing three methods to measure a balanced time perspective: The relationship between a balanced time perspective and subjective well-being. *Journal of Happiness Studies*, 14, 169–184. https://doi.org/10.1007/s10902-012-9322-x
- Zimbardo, P., & Boyd, J. (2008). The time paradox: The new psychology of time that will change your life. New York: The Free Press.
- Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social*

- Psychology, 77, 1271-1288. https://doi.org/10.1037/0022-3514.77. 6.1271
- Zimbardo, P. G., Keough, K. A., & Boyd, J. N. (1997). Present time perspective as a predictor of risky driving. Personality and Individual Differences, 23, 1007–1023. https://doi.org/10.1016/S0191-8869(97) 00113-X

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