Chapter 8
Relative Time and Life Course Research

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Life course research (LCR) is intrinsically temporal, but this literature often draws on an unproblematized and undertheorized treatment of time (Wingens & Reiter, 2011). Time in mainstream LCR, particularly when taking a quantitative approach, is viewed as a marker—a container where changes can occur and through which they can be tracked—but not a matter of examination itself. Time is generally understood as a linear and unidirectional construct, tied to the chronological clock and calendar, proceeding at a uniform pace, and providing an analytical frame for the phenomena under study without being part of them. In this way, time becomes a reified, absolute structure to pigeon-hole life course processes. Chronological time and age are indicators of underlying social and psychological phenomena in various life domains and their dynamic association. A linear understanding of time is also generally linked to an understanding of causality where causes lead to consequences in an orderly sequence.

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Yet, linearity, unidirectionality and uniform pace do not correspond to the way in which individuals experience time in their lives (Strauss, 1997 [1959]; Neale, 2019). Contemporary social science commonly acknowledges that time is multiple and diverse, including natural time, social times and lived times (Adam, 1990). As in physics, time is relative because it depends on the position and disposition of the observer (Rovelli, 2018). Under a relative perspective, time is not merely an external structure within which lives unfold but is subjectively defined and context dependent.

The notion that time has a dual nature, one absolute and universal and one relative and subject or context-dependent, is a common theme in temporal theorizing. This is so from the classic distinction drawn by Aristotle in the Physics (book IV, 10–14) between the abstract Chronos-time and a meaningful Kairos-time (Rämö, 1999), to more recent distinctions between *objective* and *inner* time (Schutz, 1962) or *events in time and time in events* (Adam, 1990). All such distinctions refer to the fact that there would be an absolute, *universal measurable time* and *a perceived, relative array of times* and they are both useful in understanding the unfolding of events and transitions for they all feed into empirical realities. Many disciplines ranging from philosophy to neuroscience, including sociology, economics, psychology, or narrative studies, are confronted with the issue of how to account simultaneously for *absolute* and *relative time*. That is, how to account for the objectivized, chronological, and linear passage of time in the physical world of events, and the experiential, subjective perceptions of time in human understanding. Such ideas have been developed in parallel across disparate literatures and have now achieved a wide currency in social research. Yet, much LCR, particularly in the quantitative tradition, appears impermeable to these discussions and it has predominantly, although not exclusively, used an *absolute* conception of time.

This chapter highlights the need for a more comprehensive and explicit theoretical conceptualization of time in LCR and we argue for a broader vision that goes beyond an absolute understanding of time to encompass notions of relative time. We propose a novel tripartite conceptualization of relative time that integrates interdisciplinary insights to define the multidirectional, elastic, and telescopic nature of time as its key characteristics. We argue that incorporating relative time alongside and in interaction with absolute time into LCR is necessary to understand the temporal processes that shape lives.

Relative Time in Life Course Research and Beyond

Most LCR tends to situate events and transitions "in time" and chart changes "over time", adopting an absolute time perspective. Concepts such as timing, sequencing, duration or spacing are used to describe life events, transitions, and trajectories (Settersten & Mayer, 1997). Event history modelling focuses on the timing of occurrence of a given event (Morris, 2017). Studies based on sequence analysis draw on the measurement and ordering of states representing a trajectory within a

single (Zimmermann, 2020) or multiple (Aisenbrey & Fasang, 2017) life domains. Recently, a combination of sequence and event history modelling has given rise to Sequence History Analysis (Rossignon et al., 2018). While these studies illustrate the mainstream understanding of time in quantitative LCR, there are alternative approaches within and outside this literature that inform our understanding of relative time.

Past, Present, and Future: The Temporal Orientation of Human Agency

Mead's (1932) understanding of time as constituted through emergent events has been very influential for biographical studies and for discussions on the temporal nature of human agency. For the author, people live in the ever-passing present that shapes interpretations of the past and the future. The past is continuously reinterpreted as the present unfolds and is at the same time a resource to make sense of the present and to imagine the future. Anticipation of hypothetical future worlds of possibilities also influences present lines of action.

This notion of the complex interactions between memories, present circumstances, and future expectations have been very much central in biographical research (Bertaux & Kohli, 1984). Mead's theorization of time is also at the core of Emirbayer and Mische's (1998) proposal for a reconceptualization of agency in sociological research. The authors define agency as a temporally embedded process of social engagement involving the constitutive elements (iteration, projectivity and practical evaluation), which correspond to different temporal orientations (past, future, present). Actors are always simultaneously living in the past, future, and present as they "continuously engage patterns and repertoires from the past, project hypothetical pathways forward in time, and adjust their actions to the exigencies of emerging situations" (Emirbayer & Mische, 1998, p. 1012).

Similar ideas have been developed in discussions of human agency within LCR (Bernardi et al., 2019; Hitlin & Elder, 2007). The notion of "shadows of the past" refers to biographical experiences shaping an individual's "good reasons" to act and is linked to the idea of path dependency, whereby an existing biography feeds into decisions that delimit future pathways. The "shadows of the future" allude to how actors are influenced in their current choices by their anticipation of the future consequences of their decisions (Bernardi et al., 2019). The interpretation of one's past experiences and present circumstances influence individuals' perceived capacity to influence their own lives and project themselves into the future (Bidart, 2019).

Some parallels to these ideas can be identified among psychologists, although these have hardly been integrated in mainstream contemporary psychological research (Zimbardo & Boyd, 1999). Lewin's (1951, p. 75) definition of time perspective included "the totality of the individual's views of his psychological future and psychological past existing at a given point in time." Nuttin (1985, p. 54) expanded on Lewin's work to argue that "future and past events have an impact on

present behavior to the extent that they are actually present on the cognitive level of behavioral functioning." Recent research in the neurosciences supports Mead's theories, showing important similarities between brain activation involved in remembering the past and in imagining the future (Schacter et al., 2012).

The Temporal Horizons of Agency

The idea that agency is inherently anchored in a temporal frame of orientations has been a central tenet of biographical research, which has distinguished between everyday orientations and lifetime perspectives or horizons (Kohli, 2019). According to Alheit (1994), most of our activities are organized within a routinized and cyclical everyday temporal horizon, while a lifetime frame links our past experiences to current situations and conceivable futures under a linear framework, seeking biographical continuity and coherence (Alheit, 1994).

Inspired by Flaherty's (2003) notion of the experience of time within situated activity and Mead's "fundamental present-ness of social action" (Hitlin & Elder, 2007, p. 177), Hitlin and Elder (2007) distinguish four types of agency, which correspond to various temporal foci dictated by different types of situations. *Pragmatic agency* refers to actions requiring heightened attention in the "knife's edge" of the present moment, when habitual responses to patterned social actions break down and *identity agency*, which follows established ways of acting and role enactment, cannot operate (Hitlin & Elder, 2007, p. 177). *Life course agency* relates to extended time horizons and *existential agency* alludes to one's general ability to act. This conceptualization has proven particularly valuable in a recent analysis of the challenges for individual agency triggered by the uncertainty and situational exigencies associated with the COVID-19 pandemic (Sánchez-Mira et al. 2021b).

For Kohli (2019), everyday orientations are characterized by uniformity and repeatability, while lifetime orientations are characterized by change, progression, and inevitability. Irreversibility and the shrinking horizons associated with ageing may create pressures to take stock of one's life and make changes. Inversely, adopting a lifetime backwards gaze may lead to a reinterpretation of one's trajectory. While Hitlin and Elder's (2007) life course agency refers to the capacity of individuals to orient themselves toward the future, biographical research has tended to incorporate extended temporal horizons into the past as well (Kohli, 2019). Applying a life course time frame to the assessment of past events can be related to perceptions of self-efficacy – Hitlin and Elder's (2007) *existential agency* – and, in turn, affects the vision of the future (Kohli, 2019).

Authors in other disciplines have also dealt with notions of how the individual's temporal foci differ across immediate or longer-term frames. In management studies, Bluedorn has used the concept of "temporal depth" to describe "the distance into the past and future that individuals and collectivities typically consider when contemplating events that have happened, may have happened, or may happen"

(Bluedorn, 2002, p. 114). Temporal depth is different from temporal focus in that it is not about whether an individual is more or less past, present, or future oriented, but about how far into the future or how far into the past people think as they go about their lives (Bluedorn & Standifer, 2006).

Jones et al. (2019) have fleshed out notions of temporal depth by analyzing the temporal structure of projected futures, showing that individuals distinguish between distinct segments of the future with qualitatively divergent properties. People's attention and degree of optimism and confidence is not evenly distributed across these temporal frames (Jones et al., 2019). Their findings mirror those of temporal construal theory in psychology (Eyal et al., 2004; Liberman & Trope, 1998), which posits that more abstract features are likely to be used in construing distant future events and more concrete features will govern near future events. Desirability considerations and pros are emphasized when construing distant futures, while the feasibility of the action and cons govern the near future (Eyal et al., 2004; Liberman & Trope, 1998). In all, these studies show that individuals zoom-in and out over temporal horizons and that these different temporal foci mediate decision making in the present.

Temporal Agency in Life Narratives

Biographical research has analyzed how time is experienced, constructed and controlled within life narratives, with a specific focus on the maintenance of temporal coherence (Köber & Habermas, 2016). Research in social psychology has seen life stories as important components of the self. "Integrative life narratives" (McAdams, 2005), whereby we selectively reconstruct the past with our imagined anticipation of the personal future, provide our lives with some degree of unity and purpose, which we reconstruct as they evolve. As people accumulate new experiences or change their motivations, the meaning they attribute to past events may also change, with some gaining salience and others fading into the background (Hareven & Masaoka, 1988). These ideas connect with Flaherty's (2003) notion of "time work" in social psychology, which refers to individuals' efforts to promote or suppress particular forms of temporal experience by controlling or manipulating duration, frequency, sequence, timing and allocation.

Perceptions of Time Passage and Time Left in Life

Psychology has a long tradition of studies showing that the linearity of time, duration, and temporal order are distorted through subjective perceptions (James, 1890). This literature argued that pace and tempo of time varies across the life course as time seems to pass by more rapidly with age (Fraisse, 1967). Recent studies have

nuanced this finding, showing that impressions of recent time passage of older and younger people do not differ from each other (Droit-Volet & Wearden, 2015). There are two main explanations for time's apparent speeding up with age: memory distortions and those created by the perception that the end of life is approaching.

Memory distortion is supported by evidence that people are less able to recall instances when they were busy or had to rush in the distant past than the recent past. With the impression that they are currently experiencing more time pressure, they will have the feeling that time has recently passed more quickly (Janssen, 2017). Life appears to speed up as people become older because they underestimate the flow of remote time, which also occurs when looking forward to the remote future (Löckenhoff, 2011).

The second set of studies argues that the acceleration of time in old age can be attributed to perceptions of the time remaining in one's life (John & Lang, 2015). Such arguments follow socioemotional selectivity theory, which states that ageing is associated with changing perceptions of the amount of time left to be lived, which affect goal definition and motivational processes (Carstensen et al., 1999). Shifts in motivational priorities are due to the perception of time left to live and not about age *per se*, so that social goals can also change for young people in contexts that limit subjective future time (i.e., illnesses or war) (Carstensen, 2006). However, more recently it has been argued that age-related changes in time horizons and age-related time acceleration may combine in ways that produce an exponential increase in emotionally meaningful goals across adulthood (Giasson et al., 2019).

Research in neuroscience is also advancing our knowledge on how the brain integrates events over time (Wittman, 2011). Cognitive sciences have underlined that time perceptions are heavily affected by contextual elements both internal (i.e., emotional states) and external (i.e., the rhythm of wider activities) to individuals (Droit-Volet et al., 2013).

Time Perspectives Inventory

A broader and multifaceted conceptualization of time perspectives should include not only the quantity of time left to live but also how such future time is qualitatively evaluated (Liao & Carstensen, 2018), an aspect which Zimbardo's framework has significantly contributed to (Zimbardo & Boyd, 1999). Temporal perspectives are the cognitive processes "whereby the continual flows of personal and social experiences are assigned to temporal categories, or time frames, that help to give order, coherence and meaning to these events" (Zimbardo & Boyd, 1999, p. 1271). These categories are mobilized in the encoding, storing, and recalling of experiences and in the formation of expectations, goals and future scenarios, thus influencing people's actions (Zimbardo & Boyd, 1999). Individuals tend to emphasize or underuse particular temporal frames and an empirically informed scale has been used to measure such orientations and the values attached to them (Zimbardo & Boyd, 2008).

Zimbardo's work brought past orientations into the picture, while much previous psychological research had focused on the effects of present versus future orientations for behavioral outcomes, such as risk-taking or health behaviors (Zimbardo & Boyd, 1999).

Temporal Discounting

In economics, ideas about the relativity of time go back to the work of Commons (1934), who argued that the causality inscribed in human activity does not follow the chronology (past-present-future) of events but reflects an experiential past-*futurity*-present loop. The past generates a *futurity* (a reasonably imaginable future), which in turn conditions present activity oriented towards the future. Some economists have criticized the premise of linear time because it assumes that there is no distortion in perception of future time intervals and that all future choices are linearly connected to present choices (Lapied & Renault, 2017). Taking subjective perceptions of time into account offers new insights into theories of choice and decision making (Gislain, 2017; Lapied & Renault, 2017).

The growing literature on inter-temporal choices addresses decisions involving trade-offs among costs and benefits occurring at different times. Individuals show high time discount rates, that is they "pay more attention to the opportunity costs of choosing larger, later rewards than to the opportunity costs of choosing smaller, sooner ones" (Read et al., 2017, p. 4277), but such "impatience" in decision making declines as the time horizon gets longer (Malkoc & Zauberman, 2019). Temporal self-regulation theory has also underlined time perspectives when explaining unhealthy or risky behaviors, which are associated with high long-term costs but relatively more benefits in the short run (Hall & Fong, 2007).

Insights from economics and psychology have been recently brought together in cognitive and behavioral sciences to bridge theories on time perceptions and inter-temporal choices and to highlight the non-linearity of time perceptions in human and animal decision-making (Namboodiri et al., 2014).

The Duration of the Present and Its Division from the Future

Most research assumes that action presupposes a fundamental division between present and the future: at some point in time, the former must yield to the later. Yet, individuals' actual perceptions of the division of present and future is still an emerging field, with so far nonconclusive empirical results but promising research avenues. On the one hand, Chen (2013) posits that the way a language encodes time will influence how its speakers perceive a divide between the present and the future.

Comparing languages that require future events to be grammatically marked when making predictions from those that do not, he showed that speakers of the latter were more future-oriented across several monetary and non-monetary indicators (Chen, 2013). Pérez and Tavits (2017) yielded similar findings in their study of bilingual speakers of Russian and Estonian. On the other hand, from a psychological perspective and in an experimental setting, Hershfield and Maglio (2019) analyzed to what extent the division between present and future is perceived as more or less sharp across individuals and where in time this division exists. They showed that a perception of a sharper division leads to more future-oriented choices particularly when it is coupled with a sense of a relatively short present (Hershfield & Maglio, 2019).

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Our non-exhaustive review of the literature shows that relative time is partially recognized and promoted within, but ultimately not effectively integrated into mainstream LCR. The lack of dialogue with the advances on time conceptualization in the broader social sciences may explain why it is not yet part of the fundamental theoretical concepts of LCR. In sum, the review of existing research shows the need to think of agency as a fundamentally temporally embedded process and obliges us to propose a broader conceptualization of time in LCR.

Defining Relative Time for Life Course Research: Multidirectional, Telescopic and Elastic

We have shown that notions of relative time can be found scattered throughout a variety of research fields, but a systematic integration into a unified framework is still missing. We propose to build such integration around a definition of relative time based on three main characteristics: *multidirectional, elastic, and telescopic*. In this section, we define such characteristics and outline how these are informed by the literature's interdisciplinary insights.

Multidirectional Time

The first characteristic captures the omnipresence and interrelatedness in the temporally oriented actor of past, present, and future temporal gazes in any given situation. This characteristic draws on Mead's [1932] notion that time is constituted through emergent events in an ever-passing present, requiring a continuous refocusing of the past and the future and relies on Emirbayer and Mische's (1998) ideas on the temporal embeddedness of agency. Notably, that different temporal orientations

(past, future, present) correspond to the constitutive aspects of agency (iteration, projectivity and practical evaluation) and may predominate in any given case. In short, the multidirectionality of time captures the idea that the remembered past and anticipated future are integrated into present decision making and that some actions will be more or less oriented towards the past, the present or the future. The definition is twofold and involves a dimension of orientation and one of focus. The latter connects with Zimbardo and Boyd's (1999) idea that some individuals will be more past-, present- or future oriented and will attach different values to such temporal frames.

The multidirectionality of time is also informed by recent discussions on agency in the life course (Bernardi et al., 2019; Bidart, 2019) and criticisms to the linearity principle in the economic literature (Commons, 1934; Lapied & Renault, 2017). Finally, it is supported by research in neuroscience documenting similarities between brain processes involved in remembering the past and anticipating the future (Schacter et al., 2012).

Telescopic Time

The second characteristic of relative time describes the idea that individuals' different temporal foci over closer or more distant objects influence decision making in the present. People draw on different reference points when they reflect on their experiences or consider which actions to undertake, as if they were zooming-in or zooming-out on their lives. Telescopic time encompasses immediate time frames, alongside short, medium, and longer-term horizons that stretch into both the past and the future. This definition draws on Mead's notion of temporal horizons as a form of "distance experience" (Mead, [1932] in Mische, 2009). Following Bluedorn and Standifer's (2006) distinction between *temporal depth* and *temporal focus*, telescopic time differs from multidirectional time in that it is not about the temporal direction or orientation, but about how far into the past or into the future people think when making judgements and choices. Similar parallelisms can be drawn with Mische's (2009) notion of *reach*. This second time characteristic also relies on LCR highlighting the importance of temporal foci for human agency (Hitlin & Elder, 2007; Kohli, 2019).

We can also highlight parallelisms with the conceptualization of everyday and lifetime horizons in biographical research (Alheit, 1994; Bertaux & Kohli, 1984) or the focus of socioemotional selectivity theory on perceptions of limited versus expansive time horizons (Carstensen, 2006). It can be linked to the literature on intertemporal choices or temporal self-regulation showing that people's attention to opportunity costs is contingent on the time frame for the action (Hall & Fong, 2007; Read et al., 2017). Last, this category encompasses research on perceptions of the division between present and future (Hershfield & Maglio, 2019).

Elastic Time

The third characteristic of relative time—elastic time—embraces the notion that individuals do not perceive time as continuous, uniform, or linear, but that time can be experienced at more or less intensive tempos and paces. Perceptions of time progression remain largely unexplored in LCR (for an exception, see Neale, 2015), despite being a central issue of psychological research for over a century. Our definition of elastic time is thus informed by studies in psychology and cognitive sciences showing that linearity, regularity and duration are distorted through subjective perceptions, which are contingent on the processes of recall of the past and projection into the future (Janssen, 2017; Löckenhoff, 2011). Distortions in time perceptions also reflect the adaptability of our internal clock to the events occurring around us (Droit-Volet et al., 2013). These discussions are mirrored by recent empirical research in psychology and neurosciences on how the brain integrates events over time (Wittman, 2011).

Relative Time at the Intersection of Biographical and Social Times

The three characteristics of relative time outlined represent analytical distinctions to understand the subjective perception of time at the individual level of experience. However, time perceptions and orientations are not merely a product of individual forces but are constructed through intersubjective processes (Emirbayer & Mische, 1998) and should thus be analyzed as relational, cultural, and historical. Mead's ([1932] in Emirbayer & Mische, 1998) notion that actors are simultaneously embedded in multiple, nested, and overlapping temporal-relational resonates with a conceptualization of the life course as a "multifaceted process of individual behavior", characterized by interdependencies across time, life domains, and levels of analysis (Bernardi et al., 2019, p. 2). By considering multiple, heterogenous, asynchronous temporalities, time can be understood as multidirectional, multidimensional, and multilevel, just as life course processes are (Bernardi et al., 2019).

We may think of several ways of looking at relative time as co-constructed. The degree of present-ness of a situation is, *per se*, relationally defined. The individual disposition to be more or less future, past, or present oriented is developed in interaction with others throughout the life course. Impressions of time passage may be influenced by the perceptions of others, just as these may expand or restrict our temporal horizons.

LCR has dealt with some of these issues, notably those concerned with the intersections between biographical and social times. The concept of an institutionalized life course emphasizes the effects of legislation and policies on shaping the life course, and notably the timing of transitions (Mayer, 2004). Cultural "age" norms

can also have a structuring effect on individual lives (Eliason et al., 2015; Settersten, 2003). These studies illustrate that time can be heterogeneous across levels of analysis such that individual and social tempos may reflect different degrees of (a)synchrony. If we look at the heterogeneity of time through our tripartite characterization, we can systematically analyze other ways in which tempos, temporal orientations and horizons differ across life domains and levels, and the perceived synchronicities or disjunctures between these different temporalities.

Different life domains have parallel, asynchronous timings, reflecting varying degrees of coherence or conflict, some of them being more rigid than others. The domains of education and employment have been characterized by a strong degree of temporal structuring, given that these are more regulated by social policies, which define the passage through these institutions over time and by age (Settersten, 2003). These domains often operate at faster paces and impose stricter deadlines compared to the family domain, where trajectories are less predictable and more structured informally, through subjective age deadlines (Settersten, 2003). Besides heterogeneity in tempos and paces operating across life domains, there may also be differences in in temporal orientations or horizons. For instance, a focus on the employment domain may carry a stronger future-oriented focus and longer-term horizons.

Research on the heterogeneities of time across levels of analysis has also shown how temporal asynchronicities between biographical, family, or historical times can lead to potential ruptures in life trajectories (Bidart, 2019; Nilsen, 2019). Discontinuities between personal times and mainstream times, or the subjective experience of "living out of time", can occur through major changes or life events (i.e., migration, bereavement, illness, retirement) (Shirani & Henwood, 2011) or changing social tempos producing an individual sense of dislocation (May & Thrift, 2001). Research has only begun to show how the massive disruptions caused by the COVID-19 pandemic favored temporal destructuring and asynchrony in family life (Sánchez-Mira et al., 2021a).

Finally, evidence from outside the life course tradition points at the relevance of analyzing differences in temporal orientations, horizons, and perceptions of time passage across social groups and cultural and historical contexts. By way of example, concerning the multidirectionality characteristic, marginalized groups with a history of prejudice and discrimination have been shown to integrate personal and collective pasts into the present and future differently (Jones & Leitner, 2015). With respect to telescopic time, poverty and economic insecurity restrict our temporal horizons, with the future shrinking in favor of present or past time perspectives (Fieulaine & Apostolidis, 2015). Concerning the elasticity of time, age norms may operate differently across contexts or social groups. Ethnic minorities and working-class groups refer more to temporal, earlier deadlines, which has been interpreted because of their more limited opportunities and the fact that advantages and disadvantages accumulate over time, with "clocks thus ticking faster" for these groups (Settersten, 2003). In all, there is much to be learnt about the specific temporal orientations, horizons, and perceptions of time passage of specific populations (across gender, cohort, race, class, or culture) and for specific kinds of experiences.

Discussion and Implications for Life Course Research

LCR needs a more comprehensive and explicit theoretical conceptualization of time. Time perceptions and orientations have only rarely been stressed in LCR despite being studied widely in other disciplines. These insights have not been adequately integrated, whether it be at the level of conceptual development or interpretation of research findings or at the level of research design and data analysis. We propose that LCR—with its biographical approach and a focus on the timing of lives—is best suited to integrate the knowledge produced by tracking facts in time under an absolute framework together with relative time approaches. An actor-based model of life course processes (Bernardi et al., 2019) considers the salience of time perceptions and orientations for biographical agency, while integrating a multilevel and multidomain perspective that other disciplines have largely omitted.

We have argued that much LCR conventionally draws on an absolute understanding of time (i.e., linear, chronological, uniform). We built on multidisciplinary contributions to propose a broader definition that incorporates relative (i.e., multidirectional, elastic, telescopic) understandings of time. The agentic actor is simultaneously temporally oriented towards the past, present and future in any given situation, reflecting the multidirectionality of time. Individuals continuously shift across closer or more distant temporal horizons that emerge through the telescopic nature of time. Time is "dense" because it is experienced at varying tempos and paces reflecting the elasticity of time.

These three characteristics of time constitute analytical distinctions, but they may be partially overlapping and interacting with each other. Different time horizons (telescopic time) may be associated with different perceptions of tempos and paces (elastic time), as studies on the interaction between perceptions of time remaining in life and aged-related time acceleration suggest (Giasson et al., 2019). A more future-oriented person (multidirectional) may also have more extended time horizons (telescopic). Or a more present-oriented person (multidirectional) may perceive time as passing more quickly (elastic).

Our focus on biographical agency has drawn us to develop concepts for addressing relative time at the individual level of experience. However, we do not ignore that perceptions of time passage, temporal orientations and horizons are the product of relational processes, and it is thus crucial to address how they may differ across life domains and levels of analysis, and the perceived synchronicities or disjunctures between these different temporalities.

In short, this chapter has argued that incorporating relative time perspectives alongside and in interaction with absolute time is necessary to produce a comprehensive understanding of the temporal processes that shape lives. The implications for LCR are multiple and important.

First, the multidirectionality of time indicates the need to consider expectations about the future and interpretations of the past as core components of current life course events and transitions. To what extent we are past, present, or future-oriented may influence our choices or moderate their consequences on well-being. Time

perspectives mediate psychological outcomes (Jones & Leitner, 2015) while life course experiences can change our temporal orientations with implications for resilience (Gray & Dagg, 2019).

Second, an understanding of time as telescopic highlights the need to model assumptions about which time horizons individuals are evoking when making decisions, from immediate actions to longer-term orientations that may extend over the lifetime and beyond. The extent of the temporal depth, perceptions of horizons as limited or expansive, and the sharpness of the division between present and future horizons can make individuals more or less focused on advantages of desired choices versus the feasibility of their actions, they can shift motivational priorities or make choices more or less oriented towards the future. Life experiences may in turn change the boundaries of temporal horizons, with critical events or societal crises making the future appear more uncertain (Mische, 2009; Sánchez-Mira et al., 2021b).

Third, the elasticity of time encompasses the idea that experiences of time passage are distorted through subjective perceptions. These distortions are linked to memory biases and other cognitive processes influenced by internal and external factors. Differences in time perception could affect behavior, with individuals perceiving quicker temporal paces rushing more in their decision making. On this point, the elasticity of time connects with the perceptions of asynchrony across individual and social times, as in the literature about age norms. More research is needed on how feeling early, on time or late with respect to life course roles affects whether individuals engage and disengage certain goals, and which strategies they implement to achieve them (Settersten, 2003). Moreover, when using past experiences as part of explanations for current actions, these should not only be weighted according to the objective time distance since occurrence, but also to perceived duration.

While we have insisted on the need to incorporate relative time into LCR, both absolute and relative understandings of time need to be integrated to produce comprehensive explanations of lives which are based on biographical agency. For instance, a characteristic of relative time (elasticity) may be bound up with an attribute typically associated with absolute time (cyclicity). As certain biographical elements peak cyclically in conjunction with some recurrent temporal patterns, time may be perceived to "expand" in these moments. In a lone parent household, the other parent's absence is perceived as much more critical at particular times of the year, such as the beginning of the school year or at times of family celebration, where injunctions towards a normative two-parent family are displayed and reinforced, creating a sense of disjunction from mainstream social practices.

Integrating relative understandings of time into LCR also has strong implications for the definition and measurement of its basic units of analysis: events and transitions. Conventionally, the building blocks of LCR rest on the principles of linear time. Turning points are commonly defined as events or decisions occurring at time *t*, producing change from one state to the other, and provoking disruptions in the trajectory (Holland & Thomson, 2009). Yet, change in life is often incremental. It can come about because of an accumulation of multiple experiences—it can be

gradual, and it can reflect a non-linear evolution, drifts, or random and sometimes contradictory developments (Saldana, 2003). Ruptures in biographical narratives often constitute moments of redefinition of oneself and the social relations in which we are embedded (Bessin, 2009). Hence, the multidirectionality of time, or the simultaneous assessment of past, present, and future life circumstances, operates in the definition of *trigger points* as moments instilling changes in an inner biographical disposition (Strauss, 1997 [1959]); Neale, 2019). *Tipping points* (Gladwell, 2000) are the result of an accumulation of experiences that eventually reach a point of no return, beyond which a new state is finally reached. This relates to the telescopic nature of time, as the irreversibility and the shrinking horizons associated with lifetime horizons create pressures to take stock of one's life and make changes eventually turning gradual transformations into a (self-defined) change of state. In short, both multidirectional and telescopic time help us understand how varied contexts and circumstances are interpreted retrospectively as producing change, and how their meaning may change over time.

Similarly, relative time requires new ways to think about transitions, notably through the lens of elastic time. Research has shown that boundaries between life stages may be more blurred than generally assumed (Bynner, 2007). Transitional stages often unfold gradually, making it difficult to identify a starting date or a relevant marker, as parallel, asynchronous timings can govern different aspects of a transition (Bernardi & Larenza, 2018). It is thus necessary to question the principles of timing and measurable duration (from event X to Y) upon which conventional definitions of transitions rest. As highlighted in the introduction to the volume, this raises questions about the meaning of sequencing or spacing. Transitions can also be perceived as more or less dense depending on the tempos and accumulation of events occurring within a given period. Moreover, the temporal markers, boundaries, and paces for transitions can be revisited at different times in life. Applying a life course time frame (i.e., telescopic time) may lead us to assess previous life periods differently, which reflects how the different relative time characteristics interact in shaping the processual nature of both turning points and transitions. These arguments are in line with Adam's (1990) insight that events do not occur in time, but that they constitute time.

These theoretical considerations should not only speak to qualitatively oriented scholars. An empirical integration into quantitative research certainly poses operational challenges. However, interpretation of life course patterns could include considerations of the ways in which relative time intersects with absolute time to shape processes of change over the life course. In the meantime, prospective qualitative research is still the best suited through successive waves of data production to compare the various pasts, presents and futures narrated at given points in time (Schütze, 2008). Such research can show how individuals recursively revisit the past and the future as different time horizons are applied and perceptions of paces change, enhancing our understanding of the complex mix of objective and subjective dimensions of temporal processes that shape life courses.

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