

Please quote or cite from published version

Abstract: This chapter offers an overview of the ways agents might extend over time and the characteristic structure of extended human agency. Agency can extend in two distinct but combinable modes: the ontological, which gives rise to simple continuous agents, and the conceptual, which gives rise to agents who conceive of and care about distal times, and have minimal planning abilities. Our extended form of agency combines both. But we are still limited by the temporal locality in the operation of our psychological and executive powers. To account for this locality, I introduce the notion of “temporal selves”, as the loci of immediacy in the agent’s determination of their psychology, conduct, and practical standpoint. I argue that the passage of time generates, by itself, the threat of temporal alienation from distant temporal selves. A genuinely extended agency requires temporal identification: the sharing, by separate temporal selves, of a temporally extended and integrated practical standpoint. This temporal identification cannot be produced simply by temporal identity as continuity. What is required is temporal identity in the mode of unity and integration. This identity does not precede temporal identification but is co-constituted with it. I offer a preliminary account of the structure of the units of integration for agents who aspire to persist in the mode of unity and integration. I close with a cautionary note: the complex structure of integration, although familiar in everyday life, is often missed by standard philosophical accounts, which tend to focus on simple models of extended agency.

5

The Structures of Temporally Extended Agents

Luca Ferrero

1 Introduction

We are temporally extended agents: we persist over time, and much of what we do takes time – sometimes a very long time. It is easy to characterize our temporal nature negatively: we are not purely instantaneous agents, who only live and act for an instant. But a positive characterization is not straightforward. For there are many ways in which agency and agents might extend over time.

In this chapter, I offer an overview of the main ways in which agents might extend over time, and I sketch what I take to be the characteristic structure of extended human agency. I first introduce pure momentary agents, which exist and care only for the present moment. They exemplify a degenerate form of extended agency. I then show how agency can be extended in two distinct but combinable modes: the ontological, which gives rise to simple continuous agents, and the conceptual, which gives rise to agents who conceive of and care about distal times and have minimal planning abilities. Our extended form of agency combines both ontological and conceptual extension. Even so, we are still limited by the temporal locality in the operation of our psychological and executive powers. To account for this locality, I introduce the notion of “temporal selves”, as the loci of immediacy in the agent’s determination of their psychology, conduct, and practical standpoint. I argue that the passage of time generates, by itself, the threat of temporal alienation from distant temporal selves. A genuinely extended agency requires temporal identification, that is, the sharing, by separate temporal selves, of a temporally extended

and integrated practical standpoint. This temporal identification cannot be produced simply by temporal identity as continuity. What is required is rather temporal identity in what I call “the mode of unity and integration”. This identity, I argue, does not precede temporal identification; it is rather co-constituted with it. I then offer a preliminary account of the complex structure of the units of integration for agents who aspire to persist in the mode of unity and integration. I close by sounding a cautionary note: the complex structure of integration, although familiar to us in the everyday handling of our extended agency, is often missed by standard philosophical accounts, which tend to focus on simple models of our extended agency.

2 Temporally Extended Agents

2.1 Pure Momentary Agents

Consider *pure momentary agents*. These agents only exist for a moment, they only act at that moment, and they only care about what is going on at that moment. ¹ By “moment”, I refer to the minimal temporal interval over which these agents can perform what, for them, is an executively basic action. Hence, these agents are not instantaneous; they exist and act *over* time, but their duration is, *modulo* their agential powers, minimal.

Pure momentary agents are not causally isolated. Their actions are partly shaped and constrained by what happened prior to the agents’ existence. In turn, their actions can partly shape and constrain what happens after these agents disappear. However, since in our universe (at least at the macroscopic level) there is no such thing as action-at-a-temporal-distance, any distal effects of these momentary actions can only be mediated and indirect. Finally, these agents do not care about the indirect effects of their momentary actions: by their nature, these agents genuinely and fully live only “in the present moment”.

Pure momentary agents illustrate the degenerate form of temporally extended agency. What does it take for agency to be genuinely extended over time? There are two basic modes of

5 The Structures of Temporally Extended Agents

extension. The first is ontological: the agents themselves persist longer than a single moment. The second is conceptual: even if the agents exist only momentarily, they have the capacity to conceive, execute, and care about their momentary actions on account of at least some of their distal outcomes. The two modes can be combined, as it happens for agents like us. But I will first consider them separately to isolate their respective contributions to extended agency.

All temporal agents, regardless of their mode or modes of extension, suffer from the same limitation in executive powers as pure momentary agents: executive powers are always *temporally local*. That is, these powers are always exercised *at a particular moment*, and their *direct* effects are necessarily proximal. The distal effects of any specific and momentary exercise of executive powers, i.e., of any “momentary action”, are always indirect, even for non-momentary agents. This entails that many temporally extended pursuits need to be supported, at least from time to time, by exercises of local executive powers at separate times. That is, much of what extended agents can accomplish over time requires *sequences* of momentary steps – momentary exercises of contemporaneous local executive powers. No matter how extensive these powers might otherwise be, their distal effects are always necessarily indirect. This is a fundamental constraint on temporal execution that applies to all kinds of diachronic agents.

2.2 Ontological Extension

To understand the contribution of the ontological mode of temporal extension, let’s consider “simple continuous agents”. These agents persist over an extended period by being temporally *continuous* over that period (for present purposes, it does not matter whether this continuity is that of organisms, bodies, brains, psychologies, etc.). Although these agents persist past a single moment, their executive powers and cares are, like those of pure momentary agents, only focused on the present moment.

What difference does the extended existence of these agents make to their temporal agency? Unlike the actions of pure momentary agents, some of the momentary actions of simple continuous

5 The Structures of Temporally Extended Agents

agents might affect their future circumstances and actions (in turn, some of their present actions might have been affected by their past circumstances and actions). Even if simple continuous agents have no idea about the effects of their momentary actions on their future circumstances, sequences of momentary actions might have interesting cumulative long-term effects, and an external observer might be inclined to describe them as being extended activities. Consider a pigeon pecking seeds. This foraging behavior is present-directed; the pigeon is only concerned about eating seeds in its immediate vicinity. But as long as seeds continue to be available in its vicinity, the pigeon might continue foraging, at least for a while. Throughout this interval, the pigeon could be correctly described as engaged in the extended activity of “pecking seeds” even if the pigeon has no sense of this activity as temporally extended. **2**

Even if the agent is unaware of these extended activities as extended, their extension does not exist simply in the eyes of the beholder. Some of these activities might make an actual difference to their agents. The activities’ cumulative effects might affect the agents *as* extended entities. For example, although the pigeon’s foraging is temporally local in both execution and conception, this conduct can have cumulative beneficial effects for the pigeon as an extended organism. The pigeon does not immediately metabolize all the food it gathers; hence, the extended foraging benefits the pigeon past the interval of the actual foraging.

In the pigeon example, the cumulative effects result from the mere repetition of the same kind of simple action. More complex cumulative effects can be produced by stringing together momentary actions of different kinds. When so, the extended activity might be more structured, provided that each momentary step can build upon the effects of the previous ones and, in turn, prepare the stage for the following ones. In our world, these favorable conditions for this temporal extension apply to many simple continuous agents. For instance, biological organisms, even of the very simple kind, do not sustain themselves by starting literally from scratch at each and every moment, nor are they normally caught up in the mere repetition of the very same simple action.

5 The Structures of Temporally Extended Agents

Thanks to the sequencing of the effects of past momentary actions on the present and future configuration of the agents' circumstances, bodies, and minds (including, in case, the effects of psychological retention and learning), even simple continuous agents can engage in sequences of momentary actions that give rise to complex extended activities. These sequences can stretch over long intervals, even if the agent has no relevant conception of or care for these sequences under the extended description. These sequences can be remarkably beneficial to the agents as extended agents, even if these agents are clueless about this temporal extension. A plausible conjecture is that most, if not all, non-human organisms are simple continuous agents of this sort.

Under the right circumstances, this kind of extended agency can produce remarkable outcomes, even in the absence of any understanding of its extended structure by its own agents. Nonetheless, because of the lack of the corresponding conceptual capacities to appreciate and care for this extension as such, there is something adventitious about this temporal extension. The existence and presence of this structure need not be accidental – often, it has been selected for on account of its functional benefits. But its operation appears to lack the kind of structural unity of full-fledged extended agency, where the unfolding of the activity is supported not simply by the agent's persistence in the mode of continuity but also by a conception of the very structure of the extended activity as extended.

2.3 Conceptual Extension

A second way to extend agency is by conceptual means. Even if agents do not persist long enough, they might care for the distal effects of their actions and engage in them in light of their conception of these distal effects. Consider pure momentary agents again. Imagine that, while they still exist only momentarily, they can now engage in momentary actions out of the combination of the capacity to understand, predict, and care for the distal effects of their momentary actions.

The new conceptual abilities allow these agents to choose their momentary actions on the basis of their calculations of the distal effects of these actions. But notice that these effects are, by

5 The Structures of Temporally Extended Agents

the very nature of momentary agents, only *ballistic*; these agents can initiate a causal chain but cannot directly guide or control its distal future unfolding.³ The ballistic effects might include the operation of various devices and the contributions of other future momentary agents (who, in turn, might be expected to choose their momentary actions out of their own calculations). The calculations can thus go well beyond the mere anticipation of simple chains of brute efficient causation. In principle, sophisticated momentary agents might extend the reach of their agency quite far into the future, especially when they can rely on the future collaboration of other momentary agents.

Crucial for this sophisticated calculative power is the ability to form a *synoptic* view of the unfolding of the effects of momentary actions. This view requires more than the capacity to track the unfolding of chains of efficient causality. It also requires an understanding of overall patterns and structures in the causal chains. These patterns span across temporal intervals and often go beyond the simple sequential ordering of momentary steps (which might include, as said earlier, the momentary actions of other agents).

Equivalent, if not identical, outcomes might sometimes be brought about by different sets of intermediate steps (these sets can be different both in their composition and in the temporal ordering and location, both relative and absolute, of their components). When this is so, it is usually because these outcomes depend on the structural integrity or unity of the overall pattern of steps, which can be partially independent of specific sequences of intermediate steps.

The combination of the capacities for sophisticated calculation and synoptic views gives the momentary agent a *minimal planning* ability: the ability, first, to devise *plans* for the future unfolding of their momentary actions, and, second, to choose how to act according to these plans.⁴

It might seem a stretch to speak of “plans” in this context given that the products of these calculations cannot, by the very nature of momentary agents, guide and control their future conduct. But we ordinarily speak of plans in this way even when talking about ballistic actions (a failure to land a Mars rover, say, might be described as not “going according to plans” even if we have no direct control of the landing). What is unusual in the case of momentary agents is just that their plans are entirely ballistic. As such, these plans guide the agent who originates

5 The Structures of Temporally Extended Agents

them only once – i.e., only when the agent initiates the sequence. But the content of these plans might be accessible to other momentary agents at later times and guide them accordingly. The plan might be rediscovered by future momentary agents on their own, “passed along” the chain of implementation, or made publicly available for future reference.

For present purposes, we might imagine that these momentary agents are akin to Bratman’s (1999: 28) “frictionless deliberators”, who perform complex deliberative calculations and make a choice among the possible courses of action at a single moment and at no cost to them. This is, of course, an idealization. But this idealization helps highlight what is in principle achievable by the mere ballistic agency of subjects who only exist momentarily but have sophisticated future-directed conceptual and calculative abilities. Looking at these subjects helps us factor out, even if only notionally, the differential contributions of the two distinct modes (the conceptual and the ontological) of extending agency over time.

As we saw in 2.2, mere ontological extension raises the worry that the extension of agency is adventitious. Is there a similar worry with an extension by conceptual means only? Yes and no. Given the presence of a plan, the relation between the various steps is no longer accidental, provided that the plan continues to guide the unfolding of the steps (and that everything goes non-deviantly according to the plan). The problem, however, is that momentary agents have no guarantee that their plans are going to guide the future unfolding of the sequence, given that these agents must necessarily rely on the collaboration of future momentary agents, over which they have no direct control. There is always the risk that future agents might not collaborate or only do so accidentally (i.e., the future agents might end up contributing to the sequence for reasons that were neither endorsed nor expected by the earlier contributors).

To remove the residual accidentally, it seems that we need a conceptually sophisticated agent who persists for longer than a moment. This agent could directly guide the unfolding of one’s plans. Genuine, non-accidental, extended agency seems to require the combination of ontological *and* conceptual extension. This might not seem surprising, however, the mere combination of the two modes of extension might not be sufficient to give us genuinely extended agency. This is because of

the pervasive constraints of temporal locality, which affect not just our executive powers but also, as I am about to argue, the operations of both our psychology and practical standpoints.

3 Temporal Locality

3.1 Temporal Selves

At the root of the temporality of agency is the locality in the exercise of executive powers: all temporal agents can exercise their agency directly only at their present moment. From the point of view of any momentary execution, the future extension of agency is necessarily indirect; it is mediated either by brute causality or by other momentary exercises of agency at later times.

Temporal locality, however, affects more than the exercise of executive powers.

The immediacy constraint on executive powers is just one aspect of the temporal locality that shapes our temporality. The operations of our psychology exhibit a similar immediacy. First, there is immediacy in receptivity, as manifested in the distinctive phenomenology of present experience. Second, there is immediacy in our spontaneity – as manifested, for instance, in the acquisition, rejection, or revision of judgment-sensitive attitudes (such as beliefs and intentions), which always take place at the present time. In other words, there is no such thing as psychological action at a temporal distance. We can *directly* acquire, reject, revise, or operate with any mental attitude only at the present time and via the contemporaneous exercise of our present rational and mental powers.

Sure, a mind can reach into the past and the future. But it can do so only either by retention and anticipation (which still take place at the present time) or by the contents of present attitudes (which can make immediate transtemporal reference at a distance, both prospectively and retrospectively). These are powerful means that allow agents to reach outside of their present time. Yet they still work only through the present operation of our psychology on contemporaneous attitudes. The direct operation of our psychology is always *temporally local*, and we relate to it with a distinctive *immediacy*.

5 The Structures of Temporally Extended Agents

Let me, thus, introduce the notion of “temporal self” as the locus of the necessarily *immediate* and *temporally local* exercise of psychological and executive powers. This is how I will understand an idea that is often used but hardly ever articulated in moral psychology and in the literature on practical rationality.

It is important to resist the temptation to assimilate these “moral psychological” temporal selves to the instantaneous time-slices of persons, as these slices are used in the literature on the metaphysics of transtemporal identity. In that literature, the notion of a time-slice is not specific to persons or agency. It is rather used to address general questions about temporal identity and temporal ontology (including such matters as the difference between endurantism and perdurantism, the nature of the temporal continuum and its parts, etc.).

The temporal selves that matter in moral psychology are different from time-slices both in duration and dynamic. First, a locus of psychological and executive immediacy stretches both in the past and in the future. The length of this stretch is comparable to what James (1890) calls the *specious present*.⁵ Second, the locus moves seamlessly with the passage of time. Unlike time-slices, which are just discrete frozen snapshots or slices of infinitesimal duration, temporal selves are dynamic.

Because of the limited time horizon of immediacy, as time passes, the locus of immediacy inexorably loses direct access and control over what was previously within its range of immediacy. Once this happens, a new temporal self, centered on what is now the new present time, replaces the previous one, which becomes a *distinct* temporal self – a past self. A similar dynamic plays out for future selves. They, in turn, can become present and then past selves, just with the passage of time. Over the agent’s lifetimes, there will be a continuous succession of distinct temporal selves, each one as a distinct center of psychological and executive immediacy over the limited timespan of the temporal self’s existence.

A couple of clarifications are in order. First, temporal selves are not what I called *pure* momentary agents at 2.1: temporal selves are part of an extended agent, and their psychology, motivation, and cares are not necessarily present-directed. Their locality is a matter of the immediacy of the *operations* of psychological and executive functions, not of the objects of such operations.

Temporal selves rather resemble momentary agents with sophisticated conceptual capacities (including the capacity of minimal planning, see 2.3).

Second, because of the moving interval of immediacy, the succession of temporal selves is not, strictly speaking, a procession of utterly separate temporal selves. It is rather a succession of *partially overlapping* selves. (For instance, some portions that are in the proximal past of a given self – of its window of retention – are going to be part of the proximal future of an overlapping earlier self – of the latter self’s window of pretension, so to say.) Because of the short duration of the specious present, however, this overlap does not last for long, and it can thus be ignored when dealing with standard questions about diachronic moral psychology.

3.2 The Locality of Practical Standpoints

In addition to the temporal locality of the exercises of executive and psychological powers, all temporal agents need to contend with the locality of the practical standpoint. I am using “practical standpoint” in the broadest possible way to refer to what is variously referred to in the moral psychological literature as what determines the agent’s true or deep self; what “speaks for the agent” in what the agent does, thinks, and feels; what the agent fully “identifies” with; what lies at the core of the agent’s self-governance; etc.⁶

For the purposes of this chapter, I do not need to subscribe to any specific account of the nature of the practical standpoint. All that I need is the claim that agents like us have practical standpoints that determine where each of them *stands* in two related senses: first, the standpoint gives sufficient unity and integrity to the agent, thereby delimiting what counts, in the agent’s acting, thinking, and feeling, as genuinely one’s own; second, the standpoint orients and guides the agent’s conduct in a way that makes this conduct genuinely imputable to the agent (rather than to *external* determinants, including those portions of the agent’s psychology from which the agent is alienated).

5 The Structures of Temporally Extended Agents

The practical standpoint is usually understood as the standpoint of an extended agent: it articulates the agent's stance, as an extended subject, on her exercises of psychological and executive powers over time. Even so, any practical standpoint is always realized, so to say, at specific times, and it can directly guide only the agent's thought and conduct that are contemporaneous with the present realization of the extended standpoint. This is because the guidance of a practical standpoint always takes place via the operations of psychological and executive powers. Hence, a standpoint, even if extended in content and conception, always operates *locally* first, as realized in the present standpoint of the agent's present temporal self.

By the very nature of a practical standpoint, a sufficiently integrated agent cannot be genuinely alienated from one's contemporaneous practical standpoint (although such an agent might harbor some ambivalence and unclarity about that standpoint). But at the present time, it is always possible to be alienated from an extended practical standpoint that it is supposed to be presently realized only because it has been endorsed by the agent at some *other* time. Ultimately, it is always in the hands of the contemporaneous temporal self to determine what the agent's practical standpoint is going to be at that time (for the same reasons why the exercise of executive and psychological powers is always in the same hands). The agent at the present time is the ultimate arbiter of whether to continue to support an extended practical standpoint that comes from the past: there is no immediate identification at a temporal distance. **7**

It is the mere passage of time that gives rise to the possibility of a *temporal alienation* from a practical standpoint that comes from the agent's past. No temporal agent is immune from the threat of temporal alienation. Fortunately, there is a silver lining. The threat of this alienation is the counterpart of the possibility of temporal *identification*, which is, as I will argue later, the key to a non-adventitious extension of agency over time. Before doing so, however, I need to discuss an important distinction between two notions of temporal identity.

4 Two Kinds of Temporal Identity

4.1 Appealing to Temporal Identity

Genuine, non-adventitious, extended agency requires a combination of both conceptual and ontological extension. Simply put, the agent must both persist over time and act out of an adequate conception of their extended existence. This combination, even if necessary for genuine extended agency, is not yet sufficient because of the temporal locality in the operations of minds and practical standpoints. Even if the agent persists over time, their temporal selves are still the loci of the immediate exercises of executive and psychological powers.

In principle, the temporal selves might engage in extended activities in a ballistic form. Once a temporal self has made their momentary contribution to a given extended activity, the success of the activity lies in the hands of the momentary contributions of future selves. But these contributions are not guaranteed, because there is no assurance that the future selves will continue to endorse the same extended practical standpoint that supported the activity in the first place.⁸

The agent is not powerless against this threat. If she has adequate resources, the agent might try to force or cajole future collaboration – by setting up pre-commitments, for instance.⁹ But these would be measures of last resort: genuinely extended agency cannot rely on the systematic (even if benign) manipulation of one's future selves.¹⁰ The question facing us, thus, concerns how an agent could make sure to engage in genuine, non-adventitious, and *non-manipulated* extended agency in spite of the locality of both execution, psychology, and practical standpoint.

It seems that the agent could easily secure genuinely extended agency by appealing to one's identity via the notion of a shared practical standpoint. An agent who is, at present, reluctant to continue to embrace a shared practical standpoint might reason as follows: “Despite my present initial reluctance, I am going to embrace the shared standpoint because it comes from *my* past and it stands for *who I am* as an extended agent. I embrace this standpoint because *it is me!*”

This suggestion sounds very plausible, but we must tread carefully here. According to this suggestion, what is supposed to make a difference is that the practical standpoint is coming from *my own past*. However, there are two different notions of temporal identity that might be at play here: temporal identity *as continuity* and temporal identity *in the mode of temporal unity or integration*. These two kinds of identities work differently and neither of them, unfortunately, can offer the kind of support for the shared practical standpoint that we are looking for. Or so I am about to argue.

4.2 Identity in the Mode of Unity or Integration

Let's start with temporal identity as continuity (identity-c, hereafter). It is undeniable that temporal selves are part of the same *continuous* agent. However, by its nature, continuity is compatible with massive transformations in the agent's psychology and practical standpoint, especially over the longer term. Hence, a temporal self's acknowledgment that she is identical-c with a self at an earlier time still leaves open whether she *should* take up the practical standpoint she had at the earlier time. This is not to deny that continuity might induce some stability by way of psychological inertia or the causal effects of earlier steps, which might make it easier to continue activities already underway (what [Bratman 2010](#): 10 calls the "snowball effect"). But what is needed to respond to the threat of temporal alienation is not just a stable tendency in favor of identification but a robust rational support for it.

Consider now *temporal identity in the mode of unity or integration* (identity-i, hereafter). When an agent sees herself as temporally unified or integrated, she is not just continuous over time. She rather tries to keep the different portions of her existence together, according to some standards of diachronic coherence or unity. For present purposes, we do not need to consider (nor endorse) any specific characterization of these standards. What matters here is only that there are some standards of this kind that guide the agent in securing her unity and integration over time.

Actual success at meeting these standards is not required to be identical-i. What is required is only that, throughout a given period, the agent acts out of a certain self-conception, that is, the self-

5 The Structures of Temporally Extended Agents

conception as an extended agent who is committed to trying to live up to the standards of diachronic unity. Whereas identity-c requires actual continuity, identity-i does not require actual integration but only a stable commitment to it – which is why I called this identity “in the mode” of integration.

Unfortunately, the appeal to identity-i cannot help thwarting the threat of temporal alienation. The problem is that identity-i presupposes the very stability of the practical standpoint that it is supposed to ground. In order to have the stable self-conception required by identity-i, this self-conception needs to be locally supported, that is, to be central to the practical standpoint of each temporal self. And the shared practical standpoint must be deemed, by each temporal self, as non-accidentally stable across time. Each temporal self needs to see itself as contributing to the carrying out of the commitment to temporal integration by non-manipulated collaboration with the other temporal selves out of a shared practical standpoint.

Hence, a direct appeal to identity-i cannot help us respond to the threat of temporal alienation. The appeal to identity-i cannot overcome the resistance of any temporal selves who refuse to endorse the shared practical standpoint. A reluctant temporal self is not going to be rationally compelled to endorse the practical standpoint on account of the claim that they are *already* identical-i with an earlier self. Claiming this pre-existing identity begs the question. The correct order of justification runs in the opposite direction: endorsement of the practical standpoint is necessary to establish identity-i rather than the other way around (compare **Korsgaard 1989**: 113). This is not to deny that the existence of a prior convergence on the shared standpoint might be a consideration in favor of continuing to sustain that standpoint. This convergence might help overcome the temptation of temporal alienation. But the possible contribution of a pre-existing identity-i in *further extending* this identity *to the present time* is not to be confused with the claim that the threat of temporal alienation can be defeated by the mere appeal to a pre-existing identity-i that *already holds at the present time*.

4.3 Inter-Self Cooperation

5 The Structures of Temporally Extended Agents

I have argued that that appeal to temporal identity, either as identity-c or identity-i, does not offer an adequate response to the threat of temporal alienation. Is this worrisome? At this point, someone might suggest that we should just accept the existence of a deep and insurmountable barrier between temporal selves. This barrier makes impossible any genuine, non-accidental, and nonmanipulated temporal extension of agency as a *single, extended, and integrated* agent.

This might not be a reason to despair because we can still get temporal integration on the model of collective or shared agency, where the participants are not distinct extended agents but separate temporal selves. In other words, by analogy with inter-personal cooperation, we can get individual temporal integration by way of what might be called “inter-self” cooperation. Or so the proposal goes.

Like ordinary inter-personal shared activities, the joint enterprises of separate temporal selves would respect the distinction between their separate practical standpoints. The cooperation requires the convergence of the distinct standpoints in supporting the joint enterprise. The convergence, even if based on an extensive overlap in the content of the distinct standpoints, never amounts to a *merging* of these standpoints into a single, albeit shared standpoint. In other words, the distinct temporal selves might come together as a “we” but not as a single “I”.

Is this a plausible account of our diachronic agency? The analogy between diachronic agency and inter-personal bargaining or cooperation is a common trope in the literature on diachronic rationality and moral psychology.¹¹ Usually, the analogy is not meant as a full-blown account of diachronic agency or rationality in terms of temporal selves as ontologically prior to extended agents. But there are some authors who are more open to the possibility of the ontological priority of temporal selves (e.g., McClennen 1997; Ainslie 2001). And there is at least one case of full support for the primacy of temporal selves: Strawson (2004). In addition, Strawson argues that a stronger kind of temporal integration (especially one organized around a single narrative) might do more harm than good. In his view, we would be better off leading an

“episodic” life: a life as a succession of distinct temporal selves which, despite their continuity, do not identify with each other as the self-same (integrated) agent.

In my view, extended agency that results from an inter-self cooperation among distinct temporal selves is an open possibility. Hence, I agree with Strawson that we have a choice between different possible kinds of temporal integration, including the refusal of any such integration. This is a choice that is not imposed by any pre-existing identity-i. But unlike Strawson, I do not think that stronger kinds of integration are necessarily prone to do more harm than good. I will not be defending this claim here.¹² My present goal is only to spell out the nature of this integration, given the constraints of temporal locality and the threat of temporal alienation.

5 Temporal Identification

5.1 A Locus of Extended Agency

In the case of inter-self agency, the transtemporal collaboration arises from distinct practical standpoints, which converge on a shared goal but only out of distinct practical standpoints. The collaboration is not generated by any structural pressure *internal* to a *single* practical standpoint.

By contrast, “temporal identification” (t-identification, henceforth) imposes such pressure. By t-identifying with other selves, a temporal self shares a single practical standpoint that is no longer centered at any specific moment. This is the standpoint of an *extended* agent, a standpoint that spans the entire interval of the t-integration (which might be shorter than the agent’s lifespan, see 5.5).¹³

Continuous temporal selves are subject to the diachronic constraints of minimal planning that guides their momentary contributions to the implementation of extended activities. These constraints are imposed by the instrumental demands of the extended pursuits. The shared standpoint introduces new rational pressures and constraints that are *internal* to the

5 The Structures of Temporally Extended Agents

standpoint of an extended and integrated agent. Examples of these new pressures are the demands for diachronic consistency in the pursuit of multiple activities and for the stability of future-directed intentions (which is why the shared standpoint requires a much richer form of planning capacities, see Bratman 2022). The extended agent also becomes a suitable unit for the enjoyment (and correlated calculation) of cumulative and synoptic burdens and benefits (including those of various temporal goods)¹⁴ and for compensatory adjustments and trade-offs that, by default, cannot be imposed across separate agents without special justification (e.g., accepting earlier costs in return for larger future benefits).

These pressures help bind the temporal selves together and harness their momentary contributions to serve the larger unit of integration. These constraints and pressures work by leveraging the capacity to have a synoptic view of temporal structures and patterns,¹⁵ a capacity that is now turned onto the unity of integration itself rather than simply on distinct pieces of extended conduct.

Once in place, the constraints work top-down. They frame and bind the temporal selves' exercises of their psychological and executive powers, which are now subordinated to the larger unit of integration. This is how the separation between the selves is supposed to be overcome. Psychological and executive powers are still exercised at separate moments, but the locality of momentary practical standpoints is partially overcome by their merging into a single extended standpoint. I say "partially" because the shared standpoint is unitary in structure and content, but it still needs to be realized locally, i.e., it still needs to be accepted by each temporal self.

The integration via t-identification gives rise to an extended locus of imputability: the overall conduct, including its momentary stages, is now primarily and directly imputed to the integrated and extended agent.¹⁶ This is different from the imputability of merely continuous activities, which are *of* the extended agent only indirectly, i.e., parasitic on the primary attribution to the temporal selves who are held together only by continuity. The integration via t-identification is also different from the imputability of inter-self cooperation, where the selves come together as

agents with numerically distinct standpoints. It is only with t-identification that the relationship between the temporal selves becomes genuinely *intra*-personal.

5.2 Dual Perspective

Although t-identification overcomes one dimension of separation, the responses to the conceptual constraints and rational pressures of integration still occur at specific moments via the immediate operations of the temporal selves located at those times. Hence, the top-down direction (i.e., from temporally synoptic to temporally local) in conception, imputability, and normativity goes together with the bottom-up direction in actual operation and execution.

The co-existence of these two directions explains the dual perspective that the extended integrated agent can take over oneself at any given time. The integrated agent can see oneself from both (a) the synoptic perspective – as an integrated unit that extends over a stretch of time and (b) the local perspective – as a very short-lived center of the immediate exercise of psychological and executive powers (exercises which take place in sequential concert with the local exercises by the other centers of immediacy within the same unit of integration).¹⁷

The duality of perspectives is also reflected in the *dynamic* structure of the shared practical standpoint. The temporal selves do not necessarily share a fully fixed standpoint; they rather share a standpoint that mixes stability and robustness, on the one hand, with open-endedness and plasticity, on the other. This mix reflects the need to secure extended integration, *while* the standpoint unfolds *over* time via the sequence of local momentary realizations.

5.3 T-Identification and Identity-i

T-identification is required to secure identity-i. Whereas identity-c can be taken for granted as the necessary precondition for t-identification, identity-i neither precedes nor grounds the existence of a shared practical standpoint; it is rather co-constituted with it. This is why one cannot appeal to a pre-existing identity-i to fend off the threat of temporal alienation. At any given time, one avoids

5 The Structures of Temporally Extended Agents

alienation by t-identifying *at that time* with one's past and future selves, *thereby* securing – right at that time – one's identity-i as an extended integrated agent.

When settling on an extended activity in the mode of integration, the agent at the present time is offering to one's future selves an *invitation* to take up the pursuit at the later time in the same mode of integration, that is, to take it up by t-identifying at that time with the shared standpoint. What is offered to the future selves is a package to contribute to the continuation of the pursuit in question in the mode of an integrated and extended agent – something that a future self can do only by accepting to share the extended and integrated practical standpoint, *thereby* securing one's identity-i with the past and, in turn, issuing a similar invitation to one's future selves. **18**

This invitation is different, both in source and in object, from the one made to a future self when seeking only inter-self cooperation rather than intra-personal integration. In the inter-self case, the invitation both comes from and is directed at temporal selves conceived as *distinct* loci of agency. In the intra-personal case, the invitation, even if it comes at a particular time, comes from the integrated unit, the extended agent, and its object is the continuation of that same unit.

Notice that the latter invitation is issued by a temporal self but only in its role as the momentary realization of the extended agent. It is somewhat trickier to characterize the addressee of the invitation. The invitation is addressed to the locus of immediacy at a later time; in this sense, it is addressed at a future temporal self. Yet, the invitation is for this future self to integrate: in receiving and accepting it, the future self *thereby* gets incorporated into the larger unit.

This is not a two-step process, as if an already existing temporal self, existing as separate from the unit of integration, were *first* to receive the invitation and *only then* merge with the larger unit. Rather, the locus of immediacy at the later time determines *right there and then* whether it is going to be a realization of the integrated unit, which is thereby extended to embrace this moment, **19** or stand out as a distinct temporal self, as a separate locus of agency and imputability. **20**

5.4 The Phenomenology of Ordinary T-Integration

The articulation of t-integration in terms of an “invitation” to a future temporal self might appear to be hyper-intellectualized. One might reasonably protest that it does not resemble at all our ordinary experience of extended agency. If anything, when we try explicitly to articulate how our agency can extend over time, it seems more natural to make a naïve appeal to our identity-i as the *pre-existing* condition that is sufficient by itself to remove the worry of temporal alienation (see 3.2). There is something to this concern, but I think it only speaks to the ordinary operation and phenomenology of temporal identification, not to its more general and basic structure.

Normally, t-identification occurs by default. From moment to moment, an adult human being usually acquiesces – seamlessly, tacitly, and unreflectively – to t-identify with (and thereby sustain) an extended practical standpoint and the associated self-conception as an extended locus of agency in the mode of integration.²¹ The deliberative questions that are usually at the forefront of our attention concern specific exercises of our agency against the background of an inarticulate appreciation of our transtemporal identity as identity-i. That is, we usually frame these deliberative questions against the background of an extended practical standpoint, which we take for granted. This is why it is tempting to see our extended identity-i as a *given* rather than as an achievement of temporal identification. Ordinary experiences of seamless t-integration obscure that we are constantly, albeit usually tacitly and effortlessly, sustaining our identity-i as the background framework for the more specific practical questions that occupy our attention.

The role we play in shaping and sustaining the shared practical standpoint and the associated extended locus of agency can become apparent to us when we face major challenges to the stability of our standpoint – for instance, when we undergo a “transformative experience” (see Paul 2014) or engage in some radical re-assessment of our standpoint. Situations of this kind put explicitly in question our t-identification and, with it, the status of our temporal identity. Hence, it is no exaggeration when we describe these situations as “identity crisis”, given that in those cases the persistence of our identity-i is indeed at stake.

5 The Structures of Temporally Extended Agents

Similarly, one might occasionally face questions concerning how to deal with very distant future portions of one's life under the expectation that one will undergo radical changes in one's practical standpoint (whether because of mere drift or a sudden transformative experience). In these cases, appeal to an allegedly pre-existing identity-*i* is of no help: what is at stake in contemplating these scenarios is exactly whether one should now commit to an integrated standpoint, that is, whether to *t*-identify with these distal portions of one's continuous life. Cases of this sort make talk of distinct "selves" apt even outside of philosophical theorizing.

The special situations I have just described are a better guide to the basic structure of extended agency (i.e., to the idea of identity-*i* as something to be achieved via *t*-identification) than the phenomenology of ordinary *t*-identification. These special situations highlight how extended agency is to be shaped and sustained in the face of urgent and significant threats of dissolution or radical reconfiguration. But the need to secure identity-*i* is also present under ordinary circumstances, even if in those circumstances the need can be more easily met. We normally secure identity-*i* in a straightforward and implicit manner *just by* and *in* engaging with our ordinary practical reasoning and acting.

Hence, we should not hyper-intellectualize *t*-identification. For beings like us, much of *t*-identification takes place by default and unreflectively, especially over shorter time intervals. In the very short term, just outside of the range of the specious present, we should expect a default, implicit, and inertial continuity of temporal identification. This default continuity is produced by the standard operation of our psychological retentive capacities (which secure the basic persistence of individual psychologies) in combination with the relative stability of our local surroundings. Ordinarily, from moment to moment, we should expect a *default proximal temporal identification* and, as a result, an inertially and implicitly stable practical standpoint. This *t*-identification is what goes together with the ordinary phenomenology of our continuous psychological life. 22

The range of default proximal *t*-identification can extend beyond the very short term, especially if the agent lives under circumstances that are stable and, for the most part, engages only in activities that unfold within the temporal horizon of the stable circumstances. Under these

5 The Structures of Temporally Extended Agents

conditions, the threat of temporal alienation only appears as a remote metaphysical possibility since the agent is under little pressure to question one's default t-identification.

Imagine day-to-day agents who live in a fairly stable and predictable environment and only engage in repetitive daily activities with no long-term preoccupations. The unit of integration of these agents could just extend for 24 hours, with no pressure to question their default t-identification within that time horizon and no pressure to extend the identification past that time horizon. Outside of the daily horizon of ordinary t-identification, day-to-day agents might be like the simple continuous agents I introduced in 22. They are carried into the distal future by mere continuity, by the iteration of their daily integrated activities, which never extend past the daily horizon. Their practical standpoint might slowly change over time by drift. But given the time horizon of their concerns, they are unlikely to be bothered by any such changes.

What happens if day-to-day agents are explicitly confronted with a drastic change in standpoint? Consider a day-to-day agent who is suddenly prompted to think about financial planning for their retirement decades in the future. Should this agent necessarily and immediately t-identify with her future self who would be affected by their current financial choices? I do not think so. This agent might decide to handle the matter in the inter-self mode. It is ultimately up to her, given her nature and circumstances, to determine the extent of her horizon of t-identification, especially past the range of the default proximal identification.

What is the standard extension of default identification? This is hard to tell. Many factors contribute to it, including the reliability of retention mechanisms, the temporal extension of the projects normally undertaken by the agent, and the stability and predictability of the agent's circumstances relative to the standard extension of her projects. Besides, cultural, societal, and institutional pressures play a role in setting expectations and providing scaffolding for the standards units of integration, which might range over quite different temporal spans.²³ One possible temporal horizon is, obviously, the agent's entire life. But the structures of t-identification and identity-i, by themselves, do not entail that the maximum horizon is necessarily the best, let alone the only possible one.

5.5 Temporal Glue

The difference between identity-i and identity-c is apparent when we consider what keeps the agent together over time – the temporal glue, so to say. For identity-c, the glue is *causal*. That is why the direct connections between the temporal selves can only be local. The causal glue also gives rise to the distinctive topology of identity-c: the topology of lines of continuity. For identity-i, instead, the glue is *normative*. The unity of the standpoint and the locus of imputability are the products of a combination of conceptual constraints, rational pressures, norms of imputability, and the self-conceptions built around them.²⁴

Although the normative connections of identity-i ride on top of the causal ones, they give rise to a much more complex topology. Integration depends in part on the properties of the agent as a whole (such as diachronic coherence, narrative structures, etc.). These properties often arise via non-local yet direct relations across several elements of the agent’s psychology and conduct (such as cross-temporal referential links among attitudes, see [Bratman 2010](#): 10).

There are three dimensions of the unit of integration that complicate its topology: its shape, length, and dynamic.²⁵

Shape – Although there are different possible accounts of what makes an agent continuous (say, the body, the psychology, etc.), temporal continuity comes only in one shape, that of the line. And the question of whether a temporal agent is continuous with another self is not a matter of degree. Strictly speaking, a temporal self cannot be continuous with only a portion of another distal stage. If there is an uninterrupted chain of momentary connections between two temporal selves, these selves are as continuous as they can possibly be, despite any changes that might have occurred in the meantime.²⁶ Integration, instead, comes in many different forms and degrees. Two temporal selves that are part of the same unit of integration might still have features that are not completely or fully unified across them. And what gets to be included within a unit of integration might change over time. There is no simple shape of integration that corresponds to the line in the case of continuity, unless we take the entire life of an agent with all of its elements to be the only possible

5 The Structures of Temporally Extended Agents

unit of integration. But this choice does not seem to be necessitated by the notion of temporal integration as such.

Length – Whereas identity-c lasts for the agent’s entire life (death is the permanent loss of continuity), identity-i need not extend that far. As we have seen earlier, we can conceive of day-to-day agents, whose unit of integration goes no further than a day. An agent’s entire lifetime might just be a succession of shorter units of integration along the line of continuity (these units might either be utterly separated from each other or partially overlapping). It is possible to argue that identity-i should extend across an entire life, but this is not something forced by the mere nature of temporal integration. And even so, there are different kinds of lifetime integration. For instance, one might integrate into the “maximizing” form, taking the unit of integration as the proper locus of accumulation of mere additive goods (such as the duration of life, or utility, which are indifferent to their temporal location within a life). Alternatively, one might integrate in a “narrative” form, where the life is the span of one or more narrative arches and the goods that one might accrue, via closure or resolution, depend on their relative or absolute location within a li

Dynamic – Identity-c has a simple dynamic: the center of immediacy moves along the continuous line, whence the succession of temporal selves. For identity-i, instead, there are many moving parts, both inside and outside of the unit of integration. The three main parts are: first, the center of immediacy moves with time. This is also true of identity-c, but in identity-i the movement is internal to the unit of integration. Even if everything else stays fixed, this movement might create some trouble for integration. For instance, if the agent discounts past or future costs and benefits in a non-linear way, the mere passage of time might induce diachronic inconsistencies (see Andreou 2017). Second, the unit of integration itself might move. If the unit does not cover an entire life, the agent might take herself to be moving over time as a unit (on top of the movement of the center of immediacy). For instance, as time goes by, some portions of the remote past might be dropped from the unit of integration (say, because they are either forgotten or no longer deemed worth caring about). Conversely, future portions that were initially deemed inaccessible or not worth caring about might now get included. Third, the unit that moves might also change its shape and

5 The Structures of Temporally Extended Agents

length, possibly going through gradual but eventually radical metamorphosis in both structure and content.

Let me illustrate some of these dynamics by using Parfit (1984: 327)'s famous example of the Russian Nobleman. The Nobleman embraces socialism at his young age but anticipates a radical change in political ideals by the time he gets old. Using my terminology, the young Nobleman and the old Nobleman are identical-c. Some practices, such as the legal ones, might be sensitive only to this identity (for instance, the old Nobleman might be held legally liable for debts incurred by the young Nobleman). But identity-c need not determine the unit(s) of temporal integration. Indeed, in Parfit's original presentation, both the young Nobleman and the old Nobleman consider their distant selves as distinct units of integration. If so, if there is any project to which they both might be able to contribute directly, they are supposed to do so only in the inter-self (or better, the "inter-unit") mode. This is a relatively simple scenario that aptly describes situations in which there are clearly separate units of integration. The easiest way to create this separation is through either a sudden and drastic conversion, or what Paul (2014) calls a "transformative experience".

Consider now a variation of this case, in which the change in political ideals takes place by a slow drift over several years. This complicates the dynamic of the units of integration. Imagine the middle-aged Nobleman, who is now more politically moderate but not entirely detached from the political views of his youth. He might still endorse portions of his earlier practical standpoint. He might actually consider his current standpoint as a rational development of the earlier one. To that extent, there is a partial overlap between the units of integration (the unit center on the young man and the one centered on the middle-aged one). There might be projects initiated in his youth to which he is willing to contribute to this day, out of the shared practical standpoint centered on his present self. But he is not embracing all of the past projects, even if, in the past, he deemed them inseparable from the ones he continues to endorse now. In this way, although his young self would not take himself to be integrated with the middle-aged one, the latter one takes his unit of integration to reach into portions of his youth. In a

5 The Structures of Temporally Extended Agents

similar fashion, the middle-aged Nobleman partially identifies with his future old-age self since he anticipates that only a portion of his current standpoint will be retained by then. In turn, it is possible that the old Nobleman might still find some grounds for a partial integration with his middle-age standpoint, but none with his young one.

In the latter scenario, the direct relationship between the old and the young Nobleman resembles that of the simpler scenario and can still be modeled as an inter-self interaction, since the two units of integration are separated. But how are these two units supposed to relate to the middle-aged Nobleman? And how is the middle-aged Nobleman supposed to relate to the two units, given that he might be supporting projects that cover all three stages of his life? Extending the unit of integration to the entire life is an option but not a straightforward one, since there are portions of the distal stages that he does not endorse. Unlike non-branching identity-c, identity-i is not transitive. However, can distal selves simply ignore the fact that, along the line of continuity, there are going to be partial overlaps in units of integration? That is, can a temporal self who at least partially integrates with a later one simply ignore that this later self, in turn, is going partially to integrate with an even later one?

The dynamic of partial overlap is something that temporal agents might have to reckon with. A simple inter-unit model does not work here because there is no complete partition into utterly separate and static units of integration. Here I am not trying to offer answers to these questions. I only want to point out that the dynamics of temporal units and practical standpoints raise thorny issues that have received limited attention in the literature, even if they seem to offer a more accurate picture of the unfolding of our diachronic agency and identity. 27

There are also complexities internal to each unit of integration. For instance, in cases of temptation and temporary preference reversal, the present self might be in conflict with a larger unit of integration that encompasses the present self. In these cases, should we model the situation in terms of inter-self interaction? The model seems appropriate because the transitions in practical standpoint are very sudden (temptation often works by inducing sudden preference or judgment reversals at the present time). However, the reversal is only temporary, unlike what

happens in standard inter-self interactions. This is a well-known set of issues (see, for instance, [Bratman 2007](#): Chapter 12; [2018](#): Chapter 7), but we still need a comprehensive account that covers all kinds of changes of practical standpoint, both internal and external to the units, both static and dynamic (including such phenomena as temptation, drift, transformative experience, and what [Callard \(2018\)](#) calls “aspiration” – the “distinctive form of agency directed at the acquisition of values”).

6 Conclusion

6.1 Some Methodological Remarks

I will conclude my preliminary investigation in the structures of diachronic agents with a couple of methodological remarks. Because of the complexity of the topology of integration, we need to pay attention to the second-order dynamic of the units of integration. The extended agent, considered at a particular moment in time, is already under first-order dynamic pressures. For she is supposed to figure out what to do now to contribute to extended projects over potentially changing circumstances while integrating with past and future stages of that same unit of integration. At a first pass, the agent relies on the expectation of a shared practical standpoint to tie together the momentary contributions of her various temporal selves. The availability of the shared standpoint, however, is threatened if the unit of integration changes in shape, size, and substance with the passage of time. It is this second-order dynamic that needs to be accommodated by any sufficiently adequate account of diachronic agency and identity.

Unfortunately, there does not seem to be a straightforward answer to the problems raised by the second-order dynamic. One strategy is to move to a more generic and possibly higher-order unit of integration, which could re-absorb many of the changes as, in a sense, just some internal noise. But this strategy might end up emptying the unit of integration of much of its substantive content. The risk is that of being left with nothing more than the purely formal

5 The Structures of Temporally Extended Agents

unity of a maximally extensible but otherwise empty self.²⁸ As tempting as this solution might be, we should be cautious about losing the ability to account for the concrete diversity and complexity of our extended agency.

Other strategies might make a similarly problematic tradeoff between simplicity and descriptive adequacy. We should be mindful of this danger if we are tempted to settle for structurally simpler accounts. The temptation is to model diachronic agency and identity on one of the two more philosophically manageable extremes. On the one hand, one might give prominence to the constraints of locality and the special place of the present moment, thereby adopting a picture that denies genuine integration in favor of inter-self interactions. On the other hand, one might give pride of place to temporal integration by a unitary agent but take the integration necessarily to extend over the entire lifetime (for instance, in the form of a stable standpoint and self-conception organized around a single master narrative).

The trouble with these extreme models is that they miss at least two dimensions of complexity and their associated dynamics. First, within a single life, we can find a mix of various modes of extension (i.e., mere continuity, inter-self and inter-unit interactions, and stronger integration). Second, even within a single unit of integration, there can be tensions between different perspectives, since the very same unit can be experienced and observed from different temporal vantage points (at the present time, retrospectively, or prospectively) and at different time-scales, not to mention the effects of possible changes in the size, scope, and substantive content of the units of integration.

We are temporally integrated agents. Or better, we aspire to be so integrated, and we often succeed at it. But integration is an ongoing achievement that can take many different and dynamic forms. Temporally integrated agents might come in various shapes and sizes, on top of lines of mere continuity. To the extent that integration is valuable, there is a legitimate pressure to secure some structural stability and reduce some of the dynamic complexity in the lives of integrated agents. But in trying to develop an adequate theory of diachronic agency and identity,

we should be wary of the temptation to assume that the most viable and valuable units of integration would necessarily match the simpler philosophical models currently on offer.

References

- Ainslie, G. (2001). *Breakdown of Will*. Cambridge University Press.
- Andreou, C. (2017). Dynamic Choice. In E.N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy* (Spring 2017 Edition),
<https://plato.stanford.edu/archives/spr2017/entries/dynamicchoice/>
- Bratman, M. E. (1999). *Faces of Intention*. Cambridge University Press.
- Bratman, M. E. (2007). *Structures of Agency*. Oxford University Press, USA.
- Bratman, M. E. (2010). Agency, Time, and Sociality. *Proceedings of the American Philosophical Association*, 84(2), 7–26.
- Bratman, M. E. (2018). *Planning, Time, and Self-Governance: Essays in Practical Rationality*. Oxford University Press.
- Bratman, M. E. (2022). Planning Agency. In L. Ferrero (ed.), *The Routledge Handbook of the Philosophy of Agency*. Routledge.
- Callard, A. (2018). *Aspiration: The Agency of Becoming*. Oxford University Press.
- Dainton, B. (2008). *The Phenomenal Self*. Oxford University Press.
- Doris, J. M. (2015). *Talking to Our Selves: Reflection, Ignorance, and Agency*. Oxford University Press.
- Dorsey, D. (2018). Prudence and Past Selves. *Philosophical Studies*, 175(8), 1901–1925.
- Ferrero, L. (2009). What Good is a Diachronic Will? *Philosophical Studies*, 144(3), 403–430.
- Ferrero, L. (2010). Decisions, Diachronic Autonomy, and the Division of Deliberative Labor. *Philosophers' Imprint*, 10(2), 1–23.
- Ferrero, L. (2022). Diachronic Agency. In L. Ferrero (ed.), *The Routledge Handbook of the Philosophy of Agency*. Routledge.
- James, W. (1890). *The Principles of Psychology*. H. Holton and Company.

5 The Structures of Temporally Extended Agents

- Jaworska, A. (2022). Agency and Identification. In L. Ferrero (ed.), *The Routledge Handbook of the Philosophy of Agency*. Routledge.
- Korsgaard, C. M. (1989). Personal Identity and the Unity of Agency: A Kantian Response to Parfit. *Philosophy and Public Affairs*, 18(2), 101–132.
- Korsgaard, C. M. (2009). *Self-Constitution: Agency, Identity, and Integrity*. Oxford University Press.
- Lindemann, H. (2014). *Holding and Letting Go: The Social Practice of Personal Identities*. Oxford University Press.
- McClennen, E. F. (1997). Pragmatic Rationality and Rules. *Philosophy and Public Affairs*, 26(3), 210–258.
- Millgram, E. (2015). *The Great Endarkenment: Philosophy for an Age of Hyperspecialization*. Oxford University Press.
- Parfit, D. (1984). *Reasons and Persons*. Oxford University Press.
- Paul, L. A. (2014). *Transformative Experience*. Oxford: Oxford University Press.
- Paul, L. A. (2017). The Subjectively Enduring Self. In I. Phillips (Ed.), *The Routledge Handbook of Philosophy of Temporal Experience: Routledge Handbooks in Philosophy*. Routledge.
- Prosser, S. J. (2017). Rethinking the Specious Present. In I. Phillips (Ed.), *The Routledge Handbook of Philosophy of Temporal Experience: Routledge Handbooks in Philosophy*. Routledge.
- Schechtman, M. (2007). Stories, Lives, and Basic Survival: A Refinement and Defense of the Narrative View. *Royal Institute of Philosophy Supplement*, 60, 155–178.
- Schechtman, M. (2008). Diversity in Unity: Practical Unity and Personal Boundaries. *Synthese*, 162(3), 405–423.
- Schechtman, M. (2014). *Staying Alive: Personal Identity, Practical Concerns, and the Unity of a Life*. Oxford University Press.
- Schechtman, M. (2020). Glad it Happened: Personal Identity and Ethical Depth. *Journal of Consciousness Studies*, 27(7–8), 95–114.
- Smith, A. M. (2012). Attributability, Answerability, and Accountability: *In Defense of a Unified Account*. *Ethics*, 122(3), 575–589.

5 The Structures of Temporally Extended Agents

Stout, R. (2018). *Ballistic Action: In Process, Action, and Experience*. Oxford University Press.

Strawson, G. (2004). Against Narrativity. *Ratio*, 17(4), 428–452.

- 1 I use “care” as an umbrella term to refer to the components of an agent’s practical standpoint, such as desires, preferences, intentions, policies, saliences, priorities, sensibilities, cares, attachments, and values.
- 2 Notice that this example does not rest on each pecking action having some clearly defined boundaries (say, the action terminates when the pigeon’s neck reaches back by a certain angle). The same would be true of momentary actions that are part of a continuous flow but in which the agent has, at any given moment, only a present-directed orientation, even if an orientation that continues to move ahead as the time passes.
- 3 On ballistic actions, see [Stout \(2018\)](#).
- 4 Full bloodied planning agency introduces additional demands (see 5.1).
- 5 Prosser (1997: 146) describes the specious present as a temporal interval of several seconds, a kind of “psychological present” associated with short-term memory, to be contrasted with the even shorter interval of present conscious perceptual experiences. See also [Paul’s \(2017: 266\)](#) characterization of the specious present as the basic “subjective temporal unit of *agential* experience of the self”, my emphasis.
- 6 For an overview, see [Iaworska \(2022\)](#).
- 7 At issue here is only the locality of the operation of the standpoint, not its content. A practical standpoint can have non-local content. It might even be possible to argue that it would be hard, if not impossible, to have a standpoint that is entirely characterized as “momentary” in content—see, for instance, [Korsgaard \(1989: 113–114\)](#) and [Bratman’s \(2018\)](#) discussion of diachronic self-governance.
- 8 [See Bagnoli, Chapter 9, this volume.]

- 9 [See Arruda, Chapter 7, this volume.]
- 10 See the discussion of “diachronic autonomy” in [Ferrero \(2010\)](#).
- 11 For two examples from very different debates, see [Dorsey \(2018\)](#) and [Bratman \(2018: 9\)](#).
- 12 The best case for preferring stronger kinds of integration would show that there are some kinds of goods or values that can only be made available to or pursued by temporally integrated agents. For a preview of such an argument, see [Ferrero \(2009\)](#).
- 13 Two important precursors of the role of t-identification via shared practical standpoint are [Korsgaard \(1989\)](#) and [Schechtman \(2007; 2008\)](#).
- 14 For a taxonomy of temporal goods, see [Ferrero \(2022\)](#).
- 15 Compare [Schechtman’s \(2014: 100–103\)](#)’s discussion of the “diachronic holism” of narratives.
- 16 I use “imputability” as a generic term that is neutral on the possible distinction between answerability, accountability, and attributability, on which see [Smith \(2012\)](#).
- 17 The duality of perspective has been forcefully argued by [Schechtman \(2020\)](#). Unlike her, however, I do not take the extended perspective to necessarily cover the agent’s entire life. Notice also that when she contrasts a unified existence with a disjointed and discontinuous one, she is concerned, like me, about the separation of temporal selves, which is compatible with continuity as identity-c.
- 18 My account of the structure and content of the “invitation” appears to parallel that of [Schechtman \(2008: 417\)](#), which I discovered only when I was putting the finishing touches to this paper.
- 19 The structure here is reminiscent of the “paradox of self-constitution” in [Korsgaard \(2009: 19; see also 41ff.\)](#): “there is no *you* prior to your choices and actions, because your

identity is in a quite literal way *constituted* by your choices and actions”, whence the difficulty of adequately characterizing not only who receives the invitation but also who issues it.

20 This is not to deny that there are cases when a two-step description seems apt. This might happen when the agent is explicitly contemplating whether fully to integrate with a distant portion of their life over some temporal gap, rather than with the continuation of an ongoing integrated unit as described earlier. In this situation, however, at issue is not whether a temporal self is to integrate with an integrated unit, but whether two already extended units of integration should merge into an even larger one.

21 The extent and mode of the default t-identification that I describe here are similar to the extension of the agential perspective of the “subjectively enduring self” described by [Paul \(2017\)](#). See also [Schechtman \(2007: 162\)](#) for a defense of the “largely implicit and automatic” operation of self-conceptions of integration.

22 In the very short term, the agent might suddenly change the course of action because of unexpected occurrences such as serious emergencies, but this is not to be confused with a radical and sudden discontinuity in practical standpoint, which is a much rarer occurrence.

23 For a defense of the social and cultural determinants of personal temporal identity, see [Lindemann \(2014\)](#), [Doris \(2015: Chapter 8\)](#), and [Schechtman \(2020: 102\)](#).

24 For the normative character of diachronic unity, see [Korsgaard \(1989\)](#).

25 The topology that I describe here is quite different from the complex topology illustrated by [Dainton \(2008: 405\)](#), who is only concerned with the effects of multiple *branching* of lines of identity-c via fissions and fusions, not with identity-i. In my view, the issue

of branching continuity has played an oversized role in debates about personal identity, but I am not going to argue for this here. For present purposes, the distinction between continuity and integrity stands regardless of questions about branching. To accommodate branching scenarios, I think that one could just rephrase everything I say here in terms of quasi-identities: q-identity-c and q-identity-i.

26 Sometimes we speak of being “more or less” continuous, but this is an inaccurate way of talking; what we usually mean by degrees of continuity is either degrees of *connectedness* between adjacent stages, which are the building blocks of continuity, or the extent of similarities between non-adjacent stages which are nonetheless genuinely continuous.

27 To the best of my knowledge, the philosophical work most sensitive to the multi-dimensional and multi-perspectival character of agents’ temporal identity is that of [Schechtman \(2007, 2008, 2014, 2020\)](#).

28 For a discussion of this threat, see [Millgram \(2015\)](#).