Part 7

Agency and time

Introduction to Part 7

Luca Ferrero

Not only does our acting take place in time, but it takes time as well—often a lot of time. Even an action with the shortest possible duration, an instantaneous action, makes a difference (or prevents one) across the interval of two adjacent instants. But most of what we do takes much longer than that. One of the characteristic features of our agency is that we can sustain activities that last for a long time, possibly a lifetime.

Many of our pursuits take time because we do not have the power to bring about our goals just by a god-like ‘fiat.’ We need to take smaller steps, using the limited resources available at each particular time and location, and building on these steps to reach our distant goals. In other words, we need to structure and manage the instrumental progression of many of our deeds. We can do so, thanks to our characteristic planning capacities. These capacities also allow us to settle in advance the initiation of future pursuits, that is, to have future-directed intentions, plans, and policies. In virtue of their contents, it can be said that our intentions and plans can immediately reach into the future. But our executive powers cannot. Not only are we unable to get everything we want by an instantaneous act, but we cannot immediately act-at-a-distance either. Anything that we want to accomplish in the future, we need to accomplish either by the mere causal effects of our present actions or by relying on our future contributions to an
extended activity. That is, by relying on a sequence of our future momentary actions, each performed by the exercise of our local executive powers at each of those future moments.

The basic challenge faced by our diachronic agency is the reconciliation of, on the one hand, the limitations of our resources and the impossibility of acting at-a-distance, with, on the other hand, our capacity to conceive of and care for extended activities and distal goals. Because of this challenge, we need to figure out plans as the appropriate sequences of momentary steps to take in light of risks and uncertainties about the future. But there is an additional challenge: we need to both plan and sustain extended pursuits in the face of possible future changes in our motivational profile and practical standpoint. These are changes that are very likely to occur as time goes by, especially as we get further and further away from the time when we initiated a pursuit or adopted a future-directed plan.

The chapters in this section deal with the various philosophical questions and challenges that arise for diachronic agency because of our temporal predicament. Here is a sample of the philosophical questions discussed in these chapters: What are the possible structures of our extended pursuits? What is the nature and import of our planning capacity? How are the demands of rationality affected by different conceptions of our diachronic agency? How does our diachronic agency relate to our temporal identity as persons and agents, including the role played by narrative explanations and our mortality?

**Diachronic agency**

In ‘Diachronic agency,’ Luca Ferrero discusses the distinctive features of our temporally extended agency. We do not have the power to act directly at a distance, so any of our temporally extended projects must be sustained over its temporal unfolding by momentary actions. We need the capacity both to organize these momentary steps in light of a synoptic overview of the
extended activity as a whole and to sustain our motivation to continue to pursue the extended activity. Hence, the distinctive mode in which we act over time is that of ‘planning agency’—which is discussed at length in the next chapter.

When we engage in an extended activity, we normally see ourselves as one and the same agent across that activity, but this requires more than mere psychological continuity. This is because continuity is compatible with drastic changes in practical standpoint, which might make it very difficult to sustain extended activities. What is required is rather the stronger relation of transtemporal identification.

Another important issue about our diachronic agency is that temporally extended actions and activities can have two different kinds of internal structure. The two basic dimensions are those of continuity versus unity and telic versus atelic actions. First, a merely continuous activity (unlike a unified one) only requires the sequential concatenation of momentary actions with no sense of an overall extended structure—compare following a breadcrumb trail or amassing a pile of stones to building a house. Second, a telic action has an end that is at some distance from the action, and one engages in the action to reach the distant end, at which point the action succeeds and terminates—for instance, house-building is supposed to continue up until the house is built. An atelic action, by contrast, is completed as one engages in it—if one is walking, one has thereby walked. There are also ‘dialectical’ activities, whose point and nature are always under an ongoing and potentially never-ending reconsideration, as it happens for certain (and better) kinds of friendships and personal relationships.

The structure of our diachronic agency also affects what we might find valuable both in individual pursuits and in our lives, as shown by the taxonomy of different kinds of ‘temporal goods’ presented by Ferrero. Following a suggestion by Kieran Setiya, Ferrero discusses how
attention to the temporal structure of goods and values (and of the activities that might bring them about) might affect the general structure and orientation of our existence, including how we might manage the risks of some crisis of meaning, such as the so-called ‘mid-life crisis.’

Likewise, the chapter briefly touches on the question of how our mortality might make a difference to the structure of what we find valuable and how this relates to the temporal features of our agency.

In the closing section, Ferrero discusses the effects of the moving temporal location of the agent (with her local executive powers) relative to her extended pursuits, including the asymmetries generated by the distinction between past and future stages of the activity and the moving horizon of what the agent can anticipate and (indirectly) control.

**Planning agency**

A distinctive feature of human agency is its diachronic practical organization, both at the individual level (e.g., growing food in one’s garden) and at the social one (e.g., playing in a string quartet). In ‘Planning agency,’ Michael Bratman argues that what plausibly lies behind these basic forms of practical organization is our capacity for planning agency, an agency that is structured and cross-temporally organized by future-directed practical commitments.

Bratman begins by articulating a model of *individual* planning agency. Planning agency is a kind of goal-directed agency that involves future-directed intentions: commitments that settle what one is to do at a later time. These intentions are embedded in larger, coordinating (partial) plans with a hierarchical, means-end structure. Plan states provide a background framework for practical reasoning and exhibit characteristic stability over time. The psychological tendencies (and associated norms of rationality) toward diachronic stability and synchronic means-end coherence and consistency help support the cross-temporal organizing roles of plan states. This
role is supported by the cross-temporal referential connections across plans induced by the planning structure. These referential interconnections, together with the normal stability of intentions, support a coordinated flow of activity over time, and a structure of interwoven plan states that provides the background framework for further reasoning and action.

A properly functioning planning agency would normally support the distinctive cross-temporal organization in our diachronic agency, including our capacity to guide our activities in light of our grasp of their place in the larger structure of our intentions and commitments. As Bratman argues, we ultimately bother with planning because it supports the distinctive cross-temporal organization of our agency.

The metaphysical and rational resources already at play in individual planning agency can be leveraged to model small-scale shared intentional activity (like string quartet playing, which sits between the case of mere walking alongside strangers and the more complex activities embedded in a web of promises). According to Bratman, we can offer a sufficient construction of these joint activities in terms of the public interdependence and interlocking of the individual plan states of the participants, with contents that are in certain ways social but which continue to function in accordance with the dynamics of individual planning agency (including responsiveness to the rational pressures involved in individual planning agency).

Finally, Bratman illustrates the potential role of planning structures in our self-governance both at a time and over time. To avoid homuncular accounts of self-governance, one needs to find attitudes whose role in the agent’s psychic economy constitutes the agent’s direction of action and practical thinking in the mode of genuine agential governance. This takes two steps. First, self-governance at a time is provided by plan states which help constitute and support the agent’s persistence over time as the same agent and shape her practical reasoning appropriately. Second,
self-governance over time is a matter of governing one’s life over time as the same agent with a stable standpoint. Bratman’s solution appeals to the metaphor of acting together with oneself over time: the cross-temporal interconnections within the planned temporally extended activity of an individual agent are analogous to the interpersonal interconnections characteristic of shared intentional activity.

Bratman concludes by pointing out the fecundity of planning agency: this agency shapes the temporality of individual agency, the sociality of agency, and self-governance at a time and over time (whereas further research is needed to see whether it can also extend to more complex forms of organized agency).

**Agency, time, and rationality**

Most actions and activities are executed over time by temporally extended agents. Because the execution takes place over different moments, there are multiple opportunities for reconsideration and no guarantee that the agent will be fully unified over the time span of the action. The possibility of this fragmentation suggests that individual diachronic agency might be best modeled as a sequence of momentary agents who (i) perform a series of momentary actions, (ii) may not fully identify with each other, and (iii) may not equally benefit from the extended action. As explored by Chrisoula Andreou in ‘Agency, time, and rationality,’ the possibility of this fragmented model raises interesting and complicated philosophical questions about diachronic rationality.

First, there is the question of whether there are any rational constraints about the discounting of future costs and benefits. We often exhibit a ‘bias toward the near’: we give more weight to rewards closer to us in ways that go beyond compensating for uncertainty about the future. It is controversial whether this discounting is rationally permissible. But even among those who
accept its permissibility, it is only exponential discounting that is usually taken as permissible. Hyperbolic discounting, by contrast, is seen as problematic because it can induce the temporal reversal of rankings. Andreou wonders, however, why these reversals are seen as problematic, especially for those who accept a model of instrumental rationality in terms of fragmented agents.

Second, there is a question about rational constraints on the adoption of goals that can be carried out only in the distal future. The problem arises because, at the future time of action, one’s rankings might have changed. According to so-called ‘sophisticated rationality,’ one should plan on the assumption that rational agents invariably choose in accordance with their rankings at the future time of choice. But some philosophers disagree and suggest that, even when one anticipates a future change in rankings, rationality might allow one to form an intention and follow through with it. This is because at the future time one should either recognize the temporary nature of the change in rankings or resist reconsidering her options.

Given that reconsidering usually carries some costs (starting with those of the new deliberation), there might be a default presumption against reconsideration. But this might conflict with the fact that an actual reconsideration might prompt a justified change of mind (justified in light of a change in circumstances or the agent’s preferences). However, as suggested by Richard Holton, the point of having resolutions is to avoid the reevaluation (and the expected change of mind) that would be prompted by temptation. Or one might opt for Michael Bratman’s account, in which one might be open to reevaluation at the time of temptation but still resist changing one’s mind at that time because one recognizes the temporary character of one’s current preferences (that is, these preferences are not taken as representative of one’s extended temporal standpoint).
However, Andreou argues, the model of fragmentation raises questions about whether one should prioritize the values of an earlier momentary self over one’s present self. Given that instrumental rationality is supposed to take the agent’s values as given, why should a momentary self either disallow reconsideration or reconsider from an extended temporal standpoint? Finally, there is a question of whether there are any rational constraints regarding abandoning previously adopted goals. The debate is between two families of views. The first option is ‘straightforward maximization,’ which calls for maximization of what best serves one’s current rankings—including abandoning prior plans. The second is ‘constrained maximization,’ which calls for constraining one’s maximizing by those options compatible with prior plans, even when they conflict with one’s current rankings. Constrained maximization can support the rationality of acting resolutely to avoid self-defeating patterns of behavior and instabilities so as to secure diachronic self-governance. This view appears to rely on the model of the agent as committed to being a kind of unified self but which is still challenged by the fragmented model of diachronic agency.

**Artificial and machine agency**

As discussed by Richmond H. Thomason and John Horty in ‘Artificial and machine agency,’ planning and problem-solving are two areas where much work has been done in the development of agent architecture within artificial intelligence (AI) research. An agent architecture is a functional division of a cognitive system. Different specialized subsystems are dedicated to the various functions (such as perception, memory, and symbolic reasoning) and their interactions. This chapter traces the initial history of agent architecture on means-end reasoning and the more recent developments concerned with planning. A plan is a sequence of action that leads from an initial state to the goal state. Planning amounts to searching for the sequence to pursue among the
possible ones. There are different degrees of planning complexity. In producing its plans, a
minimal planner only uses goals and beliefs about its current and hypothetical states (modulo its
resources and competencies) but receives its beliefs and goals from a user and does not interact
with its environment. There are several dimensions along which one could make this planner
more complicated. Thomason and Horty focus especially on the following: adding sensors and
effectors, thereby embedding the agent in the environment and requiring belief revision by
monitoring the effects of its actions, accounting for limited rationality and the need for rough-
and-ready plans in real-time planning, and adding mechanisms for self-acquisition of high-level
goals.

One important complexity is added by IRMA architecture, a BDI (belief–desire–intention)
architecture, which introduces future-directed intentions inspired by Michael Bratman’s theory
of planning agency for resource-bounded agents. Planning is subjected to various constraints and
trade-offs because of limited resources. Different styles of planning can be explored
experimentally in the IRMA architecture (including trade-offs between over- and under-
planning, the different styles of intention revision, corresponding to different personality types:
stubborn, opportunistic, or even capricious). Finally, the authors discuss Thomason’s
modification of the IRMA architecture, one that incorporates two sorts of beliefs and desires
(distinguishing prima facie from all-things-considered attitudes), uses prioritized defaults to
represent informal arguments that mix beliefs and desires, and deals with conflicts between
prima facie attitudes. This architecture offers a more complex picture of the interactions between
mental attitudes and is a more faithful model of human practical reasoning.

**Agency and personal identity**
The close connection between agency and personal identity is the topic of Marya Schechtman’s ‘Agency and personal identity.’ The basic intuition is that some piece of conduct is ‘agential’ if it flows from what the agent truly is, which is then taken to imply that the identity of the person is constituted by the motivations that give rise to the actions correctly attributed to her. According to this ‘agential view’ of personal identity, both agency and identity require a consistent, unconflicted, unified, and stable motivational profile. The agential view has been defended as a response to two issues. First, a movement counts as an action rather than a mere occurrence when it flows from motivations that are endorsed by the agent. Endorsement requires complete unification in motivational profile (no conflict, no inconsistency, no unsettledness), and thus unification is also required of identity. Second, there is the question of whether one should be held responsible for past actions once one has undergone a radical change in one’s motivations. According to a ‘forensic’ conception of identity, identity tracks attributions of responsibility (rather than the other way around), and one can be held responsible only for what one did under a stable motivational profile.

The agential view contrasts with a different picture of personal identity, where identity is independent of agency and requires much less motivational consistency and stability. Despite the intuitive appeal of the agential view, the dynamics of human psychology suggest that personal identity is a much messier affair: first, it is common to encounter subjects who have recurring, and often inconsistent, patterns of thought, behavior, experiences, and commitments; second, people develop and change over time. These recurrences, inconsistencies, and changes might actually be taken as distinctive features of our identities.

In response to this challenge, the agential view of identity might try to suggest that some fluctuations and radical changes in motivational profile might reveal the strengths of a
commitment to an endorsed motivational profile, with no genuine inconstancy or ambivalence. But this reply does not take seriously that some of these vicissitudes and changes might be considered by many as inherent to their identities, rather than adventitious. The agential identity view might still be made compatible with the denial that personal identity requires a strongly unified motivational profile. To do so, the agential identity view would need to give up on at least one of two assumptions. First, it might suggest that the notion of the identity of persons is ambiguous and there is no inconsistency in personal identity, in spite of the radical changes in motivations over time. A strongly unified motivational profile is only necessary for the attribution of conduct to a person as their action, that is, for agential rather than personal identity. The second, more radical response is to accept a less-unified conception of personal identity and to complicate the attendant picture of agency. This response maintains the connection between agency, identity, and responsibility, but it no longer requires that these three notions be all-or-nothing; rather, it allows for them to be messy and complex.

**Agency, narrative, and mortality**

The relation between agency and personal identity is further explored, through the notion of narrative, by Roman Altshuler in ‘Agency, narrative, and mortality.’ The appeal to narrative in accounts of both identity and agency arises in opposition to reductionist views, which reduce both identity and agency to their components but seem to miss the unity provided by the whole. By contrast, according to narrative views, the unity of both life and action is provided by narratives, which give meaning to the constituents of life and action both by incorporating them into the whole of the narrative and by shaping them accordingly.

Although there is much dispute about the specific account of narrative, Altshuler focuses on two general features: the components of a narrative acquire their meaning from the broader context of
the story, and the meaning of earlier events is partly fixed by the later ones. Altshuler argues that narrative accounts, as metaphysical accounts of personal identity, face two problems: accretion (the past might just be an accretion of events that fail to cohere with each other and thus gives rise to a future by mere causal force) and fragmentation (these accounts necessarily exclude elements of our identity that do not fit in the narrative). In response, narrative views have emphasized the role of narrative in *practical* rather than metaphysical identity. According to practical identity views, although all elements of one’s past play some role in shaping one’s metaphysical identity, one can shape one’s agency by choosing which elements are to be included in a coherent and unified narrative.

Altshuler argues that narratives shape our agency in a variety of ways: the emotional structure of narratives can help with the structuring of our planning agency, narratives can help with our understanding of the contexts in which we exercise our agency, and they can help us see how our individual actions might fit within wider projects or lives, and they can guide by providing self-understanding (if not even self-constitution) in terms of our histories. Narrative can also help the internal structuring of actions, to the extent that actions themselves might have a narrative form (which seems plausible given the structural parallels between how narratives are shaped by their conclusions and how actions are shaped by their aims). Altshuler argues that, once we put all the functions of narrative together, we can see how narratives do more than changing the emotional significance of past events: they can actually retrospectively determine (and possibly even reconfigure) our motivational and psychological past. This ability to genuinely *shape* our past is a distinctive feature of our agency.

Finally, Altshuler discusses the connections between narrative and mortality. If life has the form of a narrative, only finite lives might be meaningful. Much of the debate about the meaning of
mortal and immortal lives proceeds as if the contribution of narrative in shaping and guiding a
life were intrinsic to agency as such, regardless of its temporal duration. But Altshuler argues
that narrative might be a tool that is exclusively adapted to mortal lives. As he concludes,
“perhaps we derive meaning from narratives within our mortal lives, but it is only mortal lives
that make room for such narratives.”

30 Diachronic agency

Luca Ferrero

Abstract

This chapter discusses the structure of our temporally extended agency. We do not have the
power to act directly at a distance, so any of our temporally extended projects must be
sustained over its temporal unfolding by momentary actions. We need both the capacity to
organize these momentary steps in light of a synoptic overview of the extended activity as a
whole and to sustain our motivation to continue to pursue the extended activity. Hence, the
distinctive mode in which we act over time is that of ‘planning agency,’ which requires a form
of temporal identification that goes beyond mere psychological continuity. I then discuss the
differences in internal structure between merely continuous and integrated activities, and
between telic and atelic ones. I provide a taxonomy of the different kinds of temporal goods
and values and how these structures might bear on the risk of crisis of meaning in our temporal
existence. I then touch briefly on the issue of how our mortality might make a difference to
the structure of what we find valuable and how it relates to the temporal features of our agency.
In the closing section, I discuss the effects of the moving temporal location of the agent (with
her local executive powers) relative to her extended pursuits, including the asymmetries
generated by the distinction between past and future stages of the activity and the moving
horizon of what the agent can anticipate and (indirectly) control.

1 Temporal agents

With the possible exception of divine agency, all agency is temporal: it takes place in time and
over time. Even the shortest imaginable action, an instantaneous or punctuate one, is a matter of
producing some change (or preventing one) from one moment to the next. But our agency is
diachronic in a stronger sense: we exist for, act over, and care about much longer temporal
intervals than the simple momentary transitions of instantaneous or punctuate actions. However,
our executive powers are temporally constrained: we can exercise them only at the present time
and with effects that reach immediately only in the proximal future. We do not have the power to act directly at a temporal distance. Hence, any temporally extended action or activity that stretches beyond a single instant must be sustained over time by the continuous exercise of our momentary executive powers throughout its unfolding.¹

The temporal ‘locality’ in the exercise of our executive powers is a core feature of our temporal condition. But there is more to our temporal condition. First, our actions are not causally isolated—they have both immediate proximal causal effects and mediated distal ones. We rely on these effects to build more complex extended actions so that we do not have to restart from scratch at each and every moment. Second, resources and opportunities for action are scarce and heterogeneously distributed over space and time. These restrictions limit what we can pursue (and how we can do so). In particular, they set constraints on the ordering of the momentary steps needed to make progress in our pursuits. These steps must be appropriately arranged to take timely advantage of the available opportunities. Depending on our goals and circumstances, the initiation and sequencing of these steps can be more or less rigid or urgent. As a result, our diachronic agency requires a rather sophisticated ability for the time-management and coordination of momentary steps, both within and across temporally extended actions and activities.

The organization of diachronic agency requires the possession and exercise of various capacities, attitudes, and concepts, including the following: (a) some sufficiently reliable expectations about the future, so we do not act blindly; (b) some (semantic and episodic) memories, so we do not have to relearn at every moment who we are, where we are, what we are able to do; (c) the capacity to conceive of the internal structure of some extended temporal intervals, so that we can understand synoptically how to temporally organize the various momentary steps; (d) some
desires, cares, and concerns that are relatively stable and not exclusively bound to the present, so that we can be motivated both to initiate and sustain temporally extended activities.

The scarcity and heterogeneity in the distribution of resources and opportunities affect not only the material conditions of execution but also the functioning of our psychological capacities (including our practical deliberation) and the formation, retention, and revision of the relevant cognitive and conative attitudes. The management of time and resources, therefore, affects not only our executive capacities but also the psychological work that precedes and accompanies the unfolding of our extended activities.

A distinctive feature of our diachronic agency is our planning capacity, our ability to organize and sustain the temporal unfolding of our deliberations and actions. According to Michael Bratman’s influential account, the planning is made possible by the contribution of our future-directed intentions. Details of the workings of planning agency can be found in a separate entry in this volume (Bratman 2021). Here I am only going to point out the variety of ways in which intentions and, more generally, plan-states are supposed to contribute to our diachronic agency. Plan-states do all the following:

1. They partially articulate a ‘plan’—a recipe or a blueprint—for structuring the momentary steps instrumental to or constitutive of the intended action.
2. They settle practical matters by closing deliberation and framing further deliberation.
3. They contribute to the division of deliberative labor across time, saving the agent from the costs of re-deliberating about matters that have already been settled.
4. They guide the implementation of the plan by governing future conduct.
5. They sustain the action throughout its unfolding (either by their direct operation or by dint of the agent’s propensities, habits, and dispositions).
6. They help overcome or counteract temptations, irrational preference reversals, and the like.
This list highlights many of the dimensions of our temporal condition. For agents like us, future-directed intentions and plan-states might play all these roles. But these roles might be partially independent of each other since they address different and separate dimensions of our diachronic agency.

Another important aspect of our diachronic agency is the temporal extension of our own existence. We are not just momentary agents, who only exist for, act in, and care about the present moment. When we engage in an extended activity, we normally see ourselves as one and the same agent—at the very least, for as long as that activity is supposed to take. Temporal identity as the selfsame agent might require more than psychological (or bodily or animal) continuity. The problem is that, over a sufficiently long time, mere continuity is compatible with massive changes in the agent’s practical standpoint. Changes in practical standpoint make it difficult for agents to sustain extended activities without recourse to some strategies, possibly manipulative ones, to secure the collaboration of future reluctant selves. Hence, it seems that, in standard instances of extended agency, the agent must see herself not just as the same by mere continuity but also by dint of a stronger transtemporal identification, which preserves the stability of her practical standpoint (see Ferrero, forthcoming).

Finally, our diachronic agency is affected by our mortality. First, we are mortal in the sense of having a necessarily finite life, which puts an upper limit to the extension of our activities and is an unavoidable source of scarce resources and opportunities for action. Second, we are mortal in the sense of being always liable to death: we constantly need to engage in active self-maintenance throughout our existence. The activity of self-maintenance might thus constitute the most basic, necessary, and pervasive exercise of our diachronic agency.

2 Kinds of temporal agents
What I have described above are the major factors and dimensions of our diachronic agency. Individual agents might be differentially impacted, given their circumstances, by some of these factors. In some extreme cases, the effects might be rather dramatic and make notable qualitative differences in the functioning of their diachronic agency. Consider, for instance, the effects of extreme scarcity of resources or the drastic shortening of the time horizon of one’s planning when one is constantly concerned about potential or actual imminent deadly threats (say, under the Hobbesian state of nature, which does not allow for the flourishing of diachronic agency).

Even in less dramatic scenarios, the effects of scarcity and instability might be so pervasive as to affect the applicable norms of practical rationality (see Morton 2017).

It might be useful briefly to compare our diachronic agency to the diachronic agency of subjects who are under very different sets of constraints. Take nonhuman animals, for instance. Like us, they are constrained by the locality of executive powers, the scarcity of resources, and mortality. However, it seems that these agents lack the psychological and conceptual capacities to conceive synoptically of both their existence and their activities as temporally extended. If so, they can only engage in extended activities in the mode of *mere continuity*; that is, via sequences of momentary or short-term actions that are prompted by present-directed desires and are responsive only to local cues. These sequences add up to extended and complex activities but in a way that is unbeknown to their agents (although these activities can benefit the organisms as extended creatures and, as such, be ‘visible’ to natural selection—a fact that can help the organisms acquire the capacities, including various instincts, to engage in these extended activities although still only in the mode of mere continuity).

At the other end of the spectrum, some agents might be only under *some* but not all of the constraints that characterize our diachronic agency. Let’s consider agents who, like us, cannot
directly act at a temporal distance and thus need to spread the execution over an extended
interval. Let’s also imagine that these agents have the psychological and motivational capacities
to conceive and care about engaging in extended activities but do not otherwise suffer from some
of the characteristic limitations of our temporal predicament. For instance, these agents might be
immortal, or suffer from no scarcity of deliberative resources or information (‘frictionless
deliberators,’ Bratman 1987), or be guaranteed a stable practical standpoint (for instance, by
being immune from temptation).

Reflecting on the diachronic agency of these subjects, even if they are only fictional, can be
methodologically helpful. To begin with, some of these agents might be taken to set standards or
regulative ideals for our own diachronic agency. For instance, we might articulate specific
standards of rationality under conditions of full information and no deliberative costs and then
qualify these standards on account of our limitations. Alternatively, we might consider the
absence of temptation as the ideal case of extended agency, an ideal against which we can then
come to appreciate the contribution of any remedial techniques—such as resolutions in Holton
(2009)’s sense or so-called pre-commitments—that help us overcome temptations.

3 The structure of extended actions and activities

Temporally extended actions/activities are not just extended in time. They can have different
kinds of internal structure. Two basic intersecting dimensions along which we can classify
activities are given by the pairs of continuity versus unity, and telicity versus atelicity.

3.1 Continuity versus unity

A merely continuous activity is produced by nothing other than the concatenation of momentary
or short-term actions, which are not undertaken in light of any appreciation or concern for their
overall structure and long-term effects. The simplest kind of continuous activity is the outcome of the sequential iteration of momentary actions of the same type. For instance, a leisurely walk is just the concatenation of steps taken from one moment to the next without heeding the overall configuration or effects of the extended walk that happens to be so produced.

A more complex continuous activity might be composed of different types of momentary actions, which might add up to some more structured extended conduct. But this activity would still count as merely continuous if the agent is just busy with stringing the momentary steps together from one moment to the next in response only to local cues and concerns. This is, for instance, the standard mode in which complex instinctual behaviors of nonhuman animals appear to unfold over time.

Contrast mere continuous activities with those that are *temporally unified or integrated*, that is, those where the agent takes each momentary step in light of her synoptic appreciation and endorsement of their overall extended structure. For instance, in house-building, the agent needs to take each step out of her appreciation and care for the overall organization of the intended sequence of steps. This organization is ultimately imposed by the structural requirements of its intended product (the house): a mere continuous activity can result in the amassing of a heap of stones or something akin to a bird nest or a beehive (which ultimately has a repetitive structure achievable by continuity), but not in the building of a house.

In paradigmatic instances of temporally unified activities, the agent continues to sustain the activity at each and every moment on account of a *stable* appreciation and endorsement of the original merits of the case in support of the activity rather than of the manipulative effects of her earlier steps (including what Bratman calls the snowballing effect) or of some auxiliary device of pre-commitment (such as ‘tying oneself to the mast’ or making side-bets on one’s future
conduct). In other words, a paradigmatic temporally unified activity respects the agent’s *diachronic autonomy* (Ferrero 2010: 15): throughout the activity, the agent normally takes herself to have a stable standpoint that continues to support the unified activity as choiceworthy at each and every moment, and in the absence of any manipulation (although, of course, not independently of the effects of what the earlier steps contributed to the actual progression of the activity). Contrast this case with that of an agent who expects some resistance to or reluctance in her future contributions to the extended activity and, as a result, needs to adopt some strategy to force, cajole, or manipulate her future momentary contributions.

The distinctive property of a unified activity is that the different momentary steps are organized in a structured way. They have to *fit* properly together. At issue is not just the continuity from moment to moment but their overall structure. The structure does not necessarily impose a strict and fixed ordering of all the steps; some might occur earlier or later, depending on the circumstances (building the foundations of a house is to be done before building the roof, but many of the other steps might be taken in many different possible orders). Eventually, however, all the steps must ‘click together’ by fitting into the overall organization demanded by the intended outcome.

The intended outcome might be, like in house-building, an item or state of affairs external to the activity itself. In many of these cases, the activity and its unity are only instrumental to the production of the item and only valued as such. But there are cases where the end is the very engagement in the activity in question. Sometimes, the agent values the instrumental process even in the absence of its expected product; sometimes the agent values the process as (partly) constitutive of that very activity. An example of the latter case is engagement in a conversation. Although there might be valuable products of the conversation (say, gaining understanding about
the topics of the conversation), one can value the dynamically unified process of engaging in a conversation as such (for further discussion of continuity versus unity, see Ferrero 2009b).

### 3.2 Telic versus atelic ends

The distinction between continuous and unified extended actions should not be confused with the distinction between telic and atelic actions. The latter distinction, although it also pertains to the temporal structures of activities, concerns specifically the temporal relation between the activity and its conditions of success.

A telic action only succeeds when its end or ‘telos’ is reached. Usually, reaching the telos counts both as the culmination and the termination of the action. The telos of a particular instance of house-building is a house. Once the house is built, the house-building has reached its success and terminus. It would be problematic if one were to continue with house-building despite having reached the required structural closure.

A telic action might be terminated earlier than its successful completion: the fact that an agent is, at some point in time, engaged in that action is no guarantee that the action is ever going to be completed. The fact that an agent was, is, or will be building a house leaves open whether the agent will have ever built a house. (In linguistic terms, the progressive aspect description does not entail the corresponding description in the perfective aspect.)

An atelic activity, by contrast, is both completed and successful as one engages in it. It has no completion or culmination external to or separate from its very exercise. The agent who is walking has thereby walked. (In linguistic terms, the description in the progressive aspect entails the corresponding description in the perfective aspect.) There is no terminus that one must reach at a later time in order to complete the atelic activity. This does not entail that trying to engage in an atelic activity is necessarily successful. In trying to walk, one might trip over oneself and fail.
Thus, in order to walk one needs to take the appropriate steps. Atelic activities, as much as telic ones, have standards that one needs to meet to engage in them. But if one meets the conditions for engagement in an atelic activity, one ipso facto meets the success conditions of that activity. In other words, when one is actually engaged in a telic action, one is not thereby guaranteed either contemporaneous or future success, whereas actual engagement in an atelic activity guarantees contemporaneous success at it.

This feature gives atelic activities a different temporal orientation from telic actions. Telic actions are, by their very nature, directed toward the distal future. Hence, they can suffer from premature interruption. Atelic activities, instead, are oriented toward the ongoing present, that is, they are directed at their own contemporaneous performance. As such, they might be stopped at any time and still be successful. However, the orientation toward their contemporaneous success does not prevent the atelic activities from continuously propelling themselves into the proximal future, in a way that might make them extend indefinitely. That is why atelic ends are sometimes called ‘infinite’ by comparison to ‘finite’ telic ends (Setiya 2014, Rödl 2010, 2011). As a structural matter, the interruption of a generic atelic activity is never premature and, as such, never a failure, even if the activity has a default propensity toward an indefinite (and potentially infinite) continuation.

An interesting kind of atelic activities is that of what Brewer (2009) calls ‘dialectical activities’: the point and nature of a dialectical activity are always under an ongoing and potentially never-ending reconsideration. Take friendship. In its dialectical form, the pursuit of friendship is not unified by an end that is given in advance in a fully specified form. Rather, the activity is unified by the ongoing clarification of what continues to make the activity desirable and valuable, something that might come in forms that continue to change over time. Similar to living, a
dialectical activity is atelic, in that one necessarily succeeds at it as one engages in it, rather than in the future. But this activity also looks forward to its continuation, propelled by the desire and the need further to clarify its point and nature (see Millgram 2016).4
Although typical examples of unified actions are telic (e.g., house-building), and standard examples of continuous activities are atelic (e.g., walking), the two classifications should not be conflated. The distinction between continuity and unity concerns the absence versus the presence of a synoptic structure in the activity; the atelic versus telic distinction concerns the temporal relations between the conditions of engagement in a pursuit with the conditions of its success. Some activities might complicate the classification. Consider the typical case of a telic action where the instrumental progression—‘the process’—toward the telos might be considered valuable in an atelic form: engaging in the process is successful as one engages in it even if the process might never culminate in the intended final product (although the intended product matters as far as setting up the constraints on what counts as engaging in that kind of process). For instance, someone might engage in some art-making because one primarily values the ‘process’ of the art-making even if one never completes the intended piece of art (compare the discussion of the ‘arts of action’ in Nguyen 2020).
Another interesting example is a continuous and atelic activity that comprises unified strands of telic components. For instance, consider the playing of a perpetuum mobile—a potentially unending progression of musical steps that relate to each other in non-local ways (such as harmonic modulations). The shorter segments have a unified internal structure. To get the segments right, the performer needs to have a synoptic view over these segments to make sure that they properly fit together. Playing any of these segments is a telic action: the meaningful musical relations take time to unfold and, until that culmination, they have not been successfully
resolved. Yet none of these culminations amount to the termination of the atelic activity. Quite the opposite, the resolution of the telic demands propels the music forward, toward a new set of telic and structured demands. The culmination of any of the telic segments is not a terminus but a push toward a potentially indefinite continuation of the musical movement. When observed over a longer period, the playing of the *perpetuum mobile* has the features of a continuous, ongoing, and atelic activity, since one is indeed successfully engaging in it as one is playing it and not at some later moment of eventual culmination. However, the contribution of the telic elements is not accidental: the very atelic and continuous character of the activity considered in its long-term unfolding depends constitutively on the dynamic interweaving of the telic segments. This complex structure seems to be common to several valuable extended activities, including the ‘dialectical’ ones.

4 Temporal goods and values

The structure of diachronic agency affects what we might find valuable both in individual pursuits and in the overall shape of our lives. Here is a quick taxonomy of the ‘temporal goods’ that might be pursued or brought about by various forms of diachronic agency.

- **Goods of mere continuity**: The value of not being (permanently) interrupted, regardless of any other feature of the activity (or a life). Mere continuity is valuable at a particular moment regardless of any prior or future history of the activity (or life) in question. Some paradigmatic examples: the goodness of surviving from one particular moment to the next, the continuation of present pleasure (and conversely, the badness of continuing to suffer a present pain).

- **Temporally additive goods**: The value accumulates over time in a simple additive away, that is, with no regard for the history of its accumulation (for instance, financial wealth, where only the amount but not necessarily the provenance of prior wealth affects its future...
accumulation; hence the saying *pecunia non olet*—the value of money is not tainted by its origins).

- **Structured, non-processual goods**: We value them because of their non-additive non-temporal structure, although a temporal activity might be necessary to bring them about and/or maintain them. Example: a house.

- **Historical goods**: We value them because they bear the marks of some of their prior vicissitudes. Example: the value of ruins or historical artifacts.

- **Temporal positional goods**: We value them because of the relative or absolute time of their occurrence or existence. Example: the value of being the first of a kind in a temporal sequence (beating a world record, say). Or the value that we assign to some goods relative to their order of appearance in our lives (e.g., when we prefer that gains follow losses, rather than the other way around).

- **Processual goods**: We value them based on their dynamics or their intrinsic relation to a process with a dynamic. First, we might value attainments, accomplishments, and achievements as such, that is, as the successful culmination of telic actions (in addition to whatever non-processual goods the action might also bring about)—we value *completing* the house, not just the finished house. Then there are processual goods produced by the dynamics of the actual engagement into a telic action: making progress, securing the integration of the various steps, adjusting the course of action in the face of perturbations and setbacks, the excitement of investigation and discovery, the tensions produced by the uncertainty of eventual success and the risk of failure, the drama, and so forth. (Notice that we can also enjoy and value these processual good ‘parasitically’ by being vicariously exposed to the dynamics of telic actions in our consumption of narratives.) These processual goods are also present in atelic activities as long as these activities have internal telic components, as in the previous example of the *perpetuum mobile*. Atelic activities might also give rise to distinctive kinds of processual goods associated with atelic success as contemporaneous to the engagement with the activity and its propensity toward indefinite continuation. For instance, this might be one valuable aspect of the experience of so-called ‘flow’ (Csikszentmihalyi 1990).
Most of these temporal goods can only be enjoyed, appreciated, and pursued by diachronic agents like us. These goods also play a significant role in shaping our conduct and lives, and in making them meaningful (see Kauppinen 2015). Unless one could argue that these goods are all reducible to or commensurable with a single kind of value (most likely of an additive kind), their structural variety, including their different temporal profiles, accounts for much of the complexity in determining what is valuable in our diachronic agency.

These temporal goods also play an important role in our temporal lives. If we care about our distinctive kind of temporality, we need to recognize the unique role played by historical, positional, and processual goods in our lives. For these goods can be truly appreciated only by beings with the capacity to conceive and engage in temporally unified actions and activities (see Kauppinen 2020 for a discussion of the relation between diachronic agency, values, and the teleological significance of actions). This is especially so for processual goods, which can be brought about only by actual engagement in the corresponding actions and activities (see Nguyen 2020).

It might be tempting to think that, among the temporal goods, we should give some priority to those produced by our telic actions, since these actions are paradigmatic examples of our distinctive capacity for future-oriented and temporally unified conduct. But Setiya (2014) warns us that structuring our lives primarily around telic actions can have unwelcome effects—as shown, for instance, by the so-called ‘mid-life crisis.’ According to Setiya, if we engage primarily in actions with telic or finite ends, we face the prospect of a procession of projects that, even if successful, ultimately feel empty and meaningless. The cause is the structural absurdity of pursuing primarily telic ends, whose value is constitutively self-destructive: telic ends might give purpose and direction to our conduct, but their achievement immediately and necessarily
extinguishes their power to guide. Engaging with telic ends makes sense only as long as they have not yet been achieved.

This absurdity can be avoided only by engaging primarily in atelic activities, that is, activities with infinite ends—such as ‘going for a walk, hanging out with friends, studying philosophy, or living a decent life’ (Setiya 2014:13). What is valuable about these projects is gained as we pursue them. They are valuable because the process of being engaged in them is valuable. This value is by its nature inexhaustible, given that, unlike the value of telic actions, it does not disappear as we succeed in our continuous engagement in any atelic activity (for a discussion of Setiya, see Kauppinen 2022; for a different take on inexhaustible goods via repetition, see Fischer 1994).5

Our mortality is another aspect of our condition as temporal agents that makes a difference to what we find valuable. A worry is often expressed that the impermanence of our deeds and lives deprives them of any meaning and value. In response, some have argued that only finite lives can be meaningful because of the role played by narrative closure in giving significance to a life. But this position appears to conflate our need for some temporally structured values with the necessity of a culmination as a narrative terminus in our deeds and lives. This is not to deny that, as Scheffler (2013) argues, “the aspects of life that we cherish most dearly—love and labor, intimacy and achievement, creativity and humor and solidarity and all the rest—all have the status of values for us because of their role in our finite and bounded lives.” However, the finitude in question need not be that of mortality as the inevitability of a temporally finite life. Instead, what appears necessary is the finitude generated by the scarcity of opportunities for action. This scarcity is a central feature of our temporal existence as mortal beings, but it might not be sufficient to prove the undesirability of all forms of immortality (for it seems possible to
conceive of a kind of immortal life that might be affected by a similar scarcity; see Ferrero 2015 and Altshuler 2021).

5 The dynamics of the practical standpoint
The previous discussion was concerned, to use the linguist’s terms, with the ‘aspectual’ dimension of temporal conduct—the characteristic features of its internal structure. Let’s now consider issues of ‘tense,’ the effects of the (moving) temporal location of the agent relative to her extended conduct (on the distinction between tense and aspect, see Dyke 2013).
Of particular interest is the situation of an agent located amidst an ongoing action, when some portions of the pursuit are now in her past, whereas others still lie in her future. Because of the locality of executive control, there is a marked asymmetry between the extent of the agent’s control of the stages of her action, since she can no longer control the past stages and has only indirect control, if any, of the future ones. This asymmetry affects the structure of the agent’s plans. The sequencing of momentary steps reflects their position relative to the agent’s temporal location. Usually, there is also a corresponding asymmetry in the agent’s knowledge about these stages: there is usually less knowledge about the future, which is why the agent needs to handle risk and uncertainty in her plans (for an introduction to questions about diachronic rationality, see Andreou 2021). Notice that agents might approach risk and uncertainty with different psychological profiles (such as different degrees of risk aversion) and different ‘styles’ of planning (including different styles of time-management, such as the particular kind of diachronic irrationality exemplified by procrastination, see Tenenbaum 2010).
A temporal asymmetry might also be reflected in how the agent values the relative location of the temporal goods she might gain throughout her pursuit. In particular, the agent might discount the values of costs and benefits relative to her present position. She might discount future goods,
or past ones, or both and not necessarily in the same manner. The nature of the temporal goods might also matter as far as discounting and rationality are concerned (for instance, honoring sunk costs might indeed be a fallacy for merely additive goods but not necessarily for more structured temporal goods, where past stages contribute to the significance of the future ones; see Kelly 2004 and Kauppinen 2020). It is very much an open question what rationality recommends about discounting (see Hare 2013; Dorsey 2017; Kauppinen 2018; Sullivan 2018; Andreou 2021). Here I have briefly outlined the effects of the passage of time on prudence, but related problems arise about morality as well (see Bykvist 2013).

The passage of time might affect the stability of the agent’s practical standpoint. His desires, preferences, saliences, cares, and values might change over time, either temporarily or permanently. If this change occurs within a particular pursuit, it raises the issue of whether the agent should (and if so, how) continue to sustain the project through its completion (for a discussion of temptation, see Bratman 1999: ch.3–4; 2007: ch.12; Holton 2009). Especially challenging for practical rationality are cases in which the changes in practical standpoint are extensive and permanent, regardless of whether they occur quickly (as it happens in many transformative experiences, Paul 2014) or gradually (either by drift or via what Callard 2018 calls ‘aspiration’).

In closing the discussion of effects of ‘tense’ on diachronic agency, it is important to remember that all the asymmetries generated by the agent’s relative temporal position within a particular pursuit are not static. When I first illustrate them, I focused on a particular moment in the ongoing project as the source of asymmetries: the agent’s present moment. But in conceptualizing the phenomena of tense and the correlated rational demands, we must always consider the dynamics of the moving center of the asymmetries. The passage of time relentlessly
recenters the source of the asymmetries. This has a compounding effect on the difficulties that we already encounter, at a single static moment, when we are trying to account for our different relations to past, present, and future stages of our activities and their associated temporal goods. The problem is particularly acute when the changes are nonlinear, including the inexorable change of temporal category that, sooner or later, affect all stages as they recede from the future into the present and eventually into the past.

6 Temporal integration of actions, activities, and the agent

For brevity’s sake, this entry focuses on particular pursuits of individual agents. In closing, I want to mention some further complications (while remaining within the confines of individual agency).

First, rationality demands that multiple extended pursuits be integrated not just at a time but also over time. The simplest way to avoid conflicts is to schedule them at different times, but this does not always work. Integration often requires that conflicting pursuits be either ranked—by giving priority to some while subordinating others—or qualified—by making some ends and the corresponding intentions either partial (Holton 2009), conditional (Ferrero 2009a) (Ludwig 2015), or disjunctive (Ferrero 2016).

Second, extended actions and activities are of the same extended agent. The agent’s temporally extended existence is subject to the same diachronic constraints of one’s agency. Hence, we need to sustain our existence as agents in the face of the locality of executive powers, the scarcity of resources, and mortality. Besides, the distinction between continuity and unity also applies to the structure of our existence. To the extent that we engage in temporally integrated pursuits, it is not sufficient that we just survive from moment to moment in the mode of mere continuity. We also need a relatively stable practical standpoint and some kind of temporal identification to
underwrite our engagement in extended and integrated pursuits that respect our diachronic autonomy. This stability and sense of identity are not a given. They rather need to be secured in the face of the constraints imposed by our predicament as temporal beings. Last but not least, this stability and the sense of identity are not static phenomena: they need to be secured in light of the same dynamical asymmetries between past, present, and future that already complicate our engagement in temporal actions and activities (see Ferrero, 2022).

**Related entries**

Agency and practical reasoning; Planning agency; Intentional agency; Agency, time, and rationality; Agency and personal identity; Agency, narrative, and mortality; Agency, events, and processes; Agency and games

**Further reading**


A series of seminal books on planning agency as our characteristic form of diachronic agency; see also the ‘Planning agency’ entry in this volume.


Two papers debating the implications of the distinction between telic and atelic ends for the meaningfulness of our pursuits and existence.
Three papers discussing the relationship between our diachronic agency, temporal goods, and mortality.

References


In this entry, I will use ‘action’ and ‘activity’ interchangeably, although ‘activity’ can sometimes refer more specifically to extended pursuits with so-called atelic ends; see discussion below.

The distinction between telic and atelic actions is often presented as matching Aristotle’s distinction between poiesis (as a species of kinesis) and praxis (as a species of energeia).

This is not to deny that there might be atelic activities in which termination counts as a failure, even if the activity has necessarily succeeded up to the point of termination. Take the activity of living. Although it is true that, if one is living at any particular moment, one has thereby succeeded in having lived up to that moment included, the termination of this activity seems to be a failure. For living is supposed to secure at least one’s proximal survival, that is, the continuation of one’s living from one moment to the next. Unlike walking, living might be constitutively oriented toward its continuation, at least into the immediate future. If this is so, from the point of view of the atelic end of living, death is always premature. This is not to say that the activity of living is trying to maximize its overall temporal extension. The maximization is not the guise under which living propels itself into the indefinite future. It is nonetheless possible to pursue any atelic activity in that form, but, when so, this is via a second-order telic end of maximization of the extension of the pursuit of a first-order atelic one. In this scenario, the interruption of the pursuit of the atelic end might not necessarily be a failure of the atelic activity as such, but it would be a failure of the pursuit of the second-order telic end of maximization.

Dialectical activities should not be confused with telic activities whose ends are not yet fully specified, such as a specificationist deliberation that aims to figure out one’s concrete objective before engaging in the corresponding action (see Millgram 2020). Likewise, they differ from ‘aspirational’ activities, which aim to acquire a new practical standpoint and are successful only when the new values have been fully acquired (on aspiration, see Callard 2018).

It is noticeable that most examples of valuable atelic activities offered by Setiya are highly structured activities, which either include subordinate telic ends on the model of the perpetuum mobile or might fit the mold of Brewer’s dialectical activities or both.