

What good is a diachronic will?

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Published online: 22 March 2008
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Abstract There are two standard conceptions of the functioning of and rationale for the diachronic will, i.e., for an agent’s capacity to settle on her future conduct in advance. According to the pragmatic-instrumentalist view, the diachronic will benefits us by increasing the long-term satisfaction of our rational preferences. According to the cognitive view, it benefits us by satisfying our standing desire for self-knowledge and self-understanding. Contrary to these views, I argue for a constitutive view of the diachronic will: the rationale for it is that it makes possible to engage in activities with a radically novel temporal structure, activities that are not merely continuous over time, but temporally integrated and unified. These activities are essential to our form of life and to our existence as temporally unified agents. The instrumental and cognitive benefits, if any, are merely secondary to the ontological ones.

Keywords Intentions · Diachronic agency · Narrative unity

1 Introduction

Is the capacity to make up our minds before we act a good thing? A positive answer might be so obvious as to make the question otiose. But Velleman has recently argued that the will—as the faculty to settle in advance what we are going to do, as the faculty of intention—is not necessarily a good thing to have and to use. The will is a proper object of awe, he claims, but having and using it is not necessarily better than not. In his view, the will is a mixed blessing. He compares the will to a magic wand: “In fairy tales, the character who looks upon a magic wand as an unalloyed

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good is destined to be sadder but wiser in the end. Being a magician isn't better than being an ordinary human, just different" (Velleman 2007, p. 1).

Velleman presents the will as the faculty to make up our minds *before* we act. This characterization is equivocal between two ways in which intentions might settle what we are going to do. First, there are cases in which we make up our minds on the spot, *immediately* prior to the performance of simple actions, say, taking a cookie that has been unexpectedly offered to us (Velleman 2006, p. 214; 2007, p. 5). Second, there are cases in which we make up our minds well in advance of the time of action by acquiring *future-directed* intentions as planning attitudes. Velleman's discussion is focused on the former cases. He wants to isolate the *reflective* dimension of intentional agency. He argues that by making up our mind just before we reach for the cookie we can ensure that our performance is neither automatic nor unreflective, even in the absence of any prior deliberation or plan. This reflective dimension might seem unrelated to the *diachronic* dimension manifested by future-directed intentions. Nevertheless, Velleman casts his account as an alternative to the pragmatic-instrumentalist views of intentions—such as Bratman's planning theory—expressly developed to account for diachronic phenomena. Velleman aspires to a unified account of the will centered on its reflective aspect, but the diachronic dimension raises a distinct set of issues that deserve a separate investigation that, I believe, should be conducted prior to assessing the prospects of any unified account of the will.¹

In this paper, I am concerned only with the 'diachronic will,' the faculty of intentions in its genuinely diachronic dimension. But I take my cues from Velleman's discussion of what might be called 'the reflective will.' The question to address is whether the diachronic will is a good thing to have and to use, and I want to be open to the possibility that even the diachronic will might be only a mixed blessing.

In discussing the diachronic will, one might also suggest retaining the basic set up of Velleman's discussion, the confrontation between the cognitive and the pragmatic-instrumentalist views. According to the former, the will's nature and rationale are understood in doxastic terms. In Velleman (2000, ch. 1)'s version, the will operates via our standing desire for self-knowledge. Acquiring the intention to φ is a matter of acquiring a belief that one is going to φ . This belief gives an additional motive to φ since, once one believes that one is going to φ , it is only by φ -ing that one can satisfy the desire for self-knowledge. This additional motive is normally sufficient to tip the balance of motivation in favor of φ -ing, whence the efficacy of intentions in determining our conduct (Velleman 2000, p. 22, 24; 2007, p. 18). This mechanism seems to work both for present- and future-directed intentions. Once the time of action comes, the motivation to φ is reinforced in the same matter whether the intention to φ is proximal or distal. To this extent, Velleman's cognitive view can account for both the reflective and the diachronic will.

¹ For a different approach to the combination of reflective and diachronic dimensions of the will, see Bratman (2007).

According to the pragmatic-instrumentalist views—such as Bratman (1987) and McClennen (1990, 1997, 1998), the nature and rationale of the capacity for intentions are understood in terms of its benefits on the long-run satisfaction of our preferences. Intentions make transtemporal coordination of action and deliberation possible, thereby reducing the costs of contingency planning, dynamical inconsistencies, and the repetition of deliberation over time. Instrumentalist views are primarily if not exclusively concerned with the will in its diachronic dimension, since the instrumental benefits can only be produced by the *transtemporal* coordination of action and deliberation.

The face-off between cognitive and instrumental views suggested by Velleman, therefore, appears more in order in discussing the diachronic will than the reflective one. Given the focus of the present investigation, this is not a problem. But it would be a mistake to address the question simply in terms of the comparison between its alleged cognitive and instrumental benefits. The prominent role played by the cognitive and instrumentalist views in the literature should not lead us to think that they are the only two plausible contenders. We must not neglect the ‘constitutive views,’ according to which the will’s primary import is ontological: The diachronic will is necessary to *make possible* novel kinds of diachronic agency. The question of whether the will is a good thing should be answered by considering what difference this novel kind of agency makes for the nature of our pursuits and the shape of our existence, regardless of cognitive and instrumental benefits. A constitutive view can be advanced for either aspect of the will, but in this work I only focus on the diachronic one. I will argue that the most significant outcome of the diachronic will is that it is necessary to secure a radically novel structure of diachronic agency, what I call ‘internally constituted temporal unity’. I will argue that this structure is essential to the activities that are distinctive of our lives as temporally extended agents and that it underlies a large portion of the projects that we most cherish. But it might still be the case that, in spite of its ontological import, the diachronic will is not an unalloyed good.

2 Kinds of diachronic agency

There are different kinds of temporally extended agency, but only some call for genuine future directed intentions. The simplest kind of diachronic agency is that of a momentary action undertaken in light of one of its future effects. Consider the igniting of a fuse to initiate a causal chain that is expected to culminate in a future explosion. By igniting the fuse at t an agent does not need a genuine future-directed intention about some future conduct of hers. She rather has an intention to do something *presently* in light of some expected future effect of her present action. One does not have a genuine future-directed intention when one just sets in motion a reliable causal mechanism to delay the onset of one’s performance. What is missing is an essential feature of intentionally diachronic agency: the continuity of the exercise of rational governance from the time of decision through the time of action (see Velleman 1997, p. 47, Ferrero 2006).

The continuous rational governance distinctive of the diachronic will, however, is not secured by the mere temporal concatenation of momentary episodes of agential governance. Consider an agent *B* who can exercise full agential governance at any particular moment but that, like a bacterium in a glucose solution, at each moment is set to move toward the higher concentration of glucose in its immediate surroundings. If the source of glucose does not move, over time *B* gets closer and closer to the source of the nutrient by her continuous exercise of rational governance. But this is not sufficient to show that *B* is engaged in a truly temporally extended activity aimed at the distal goal of reaching the source of glucose. The trajectory of *B* might give the impression that she is moving in view of this distal goal but the steady direction of her movements and the progress toward the source are only unintended cumulative effects of her momentary actions. Imagine now a different agent *H* who deliberately initiates a sequence of momentary actions in light of their cumulative expected outcome, but such that each of her future actions are only responsive to her immediate surroundings. Let's say that *H* is at the junction between two highways leading to the same city. She decides to take one by comparing the overall features and cumulative effects of the two drives (say, in terms of distance, traffic, scenery). Once she makes the turn, she no longer needs to act in light of the comparison and the appreciation of the overall structure and cumulative effects of her driving. She can simply respond to her immediate surroundings and still achieve the intended outcome. She just needs to follow the flow of traffic and stay in her lane, which require no more than her responsiveness to local cues. In this scenario, even if the initial choice was made in light of the overall effect of a sequence of momentary actions, the repeated exercise of momentary rational governance does not secure the diachronic agency distinctive of genuine future-directed intentions.

What is missing is the agent's acting, at each moment, out of *continuous* appreciation of the overall structure and cumulative effects of the sequence of her momentary actions. The diachronic will's paradigmatic operation is not the initiation of chains of only locally responsive momentary actions (not even when they are chosen in light of their overall expected outcomes). The diachronic will is fully operative only in activities that have an *internally constituted temporal unity* ('internal unity' for short), i.e., activities that (i) are made up of momentary actions that relate in non-local ways that span over the entire length of the activities; (ii) require the agent's *continuous* appreciation of the structure and outcome of the extended activities *taken as a whole*: At each moment the agent is expected to take whatever momentary step is required by the activity's global structure rather than by her proximal concerns.

Consider (i). In merely cumulative activities, each momentary step contributes only to the activity's sequential progress. The activity could be initiated or terminated at any point, affecting only its quantitative outcome, i.e., the extent of the progression along the dimension of accumulation (e.g., how close an agent like *B* gets to the source of glucose). In contrast, the interruption of a unified activity normally makes a *qualitative* difference to the outcome in that it prevents the activity's *completion* or *closure*. If prematurely interrupted, an activity that aims at internal unity usually leaves the agent with a half-baked

outcome and, at worst, with the utter failure of an aborted sequence of actions that has produced no actual progress toward the intended outcome, as when a failure to lock an arch by placing the keystone leads to the collapse of the arch and leaves behind a heap of crumbled stones. An internally unified activity is *structured*: in order for the activity to succeed, its stages have to fall into their proper place according to a *non-local* arrangement, an arrangement that spans the activity's entire temporal unfolding. In a merely cumulative activity, the stages just have to follow each other uninterruptedly. In a unified activity, the stages play distinctive roles within the sequence, roles which endow the various stages with different sorts of *significance* within the activity's progression. It is the interlocking, the fitting into place of the properly arranged momentary stages that gives closure to an extended unified activity. The activity can thereby succeed, either by producing an external output, say building a house, or an internal one, say playing a sonata.

Oftentimes, the closure amounts to the reaching of a terminus or finish, but the *telos* that structures an internally unified activity and accounts for its closure needs not amount to the activity's termination. Sometimes the closure is achieved *in motu*; it is achieved by a dynamical resolution. The stages might fall into place and give unity to the activity even if the activity is still in progress and might in principle continue indefinitely. For instance, take a *Perpetuum Mobile*, which consists of a potentially unending progression of musical steps that relate to each other in non-local ways (such as harmonic modulations); or take the dynamic resolutions of those personal relationships that are sustained as if they could continue indefinitely and would be considered a failure if they were brought to a finish. In any event, whether the unity is achieved at a *terminus* or *in motu*, in order to sustain a temporally unified activity the agent needs a full planning capacity, one that goes beyond the ability to compute and compare the distal outputs of cumulative processes exhibited by agents like *H* in the analog of the highway scenario. The full planning required by temporal unity requires the ability to manage the non-local demands of the activity's temporal structure. The agent is to be able to schedule and coordinate each stage in light of its contribution to the activity's overall structure, taking into account the inhomogeneous and often unpredictable temporal distribution of scarce resources and opportunities for action.

Consider (ii) now. In its paradigmatic instances, temporal unity is *internally constituted*. The unity is not secured simply by the agent's continuous and stable appreciation of and response to the non-local demands imposed by the activity's overall structure. The agent also needs the stable expectation that she is going to continue to find the activity choiceworthy on the basis of her original appraisal of merits of the case (or some rational development thereof). If she could not rely on the informed cooperation of her future selves, the agent might achieve unity only by *external imposition*. That is, the unity would have to be secured by a self-directed manipulation that elicits the required contributions from reluctant or ignorant future selves by giving them additional incentives, which are extraneous to her original appraisal of merits of the case. Only an internally constituted unity respects the agent's *diachronic autonomy*, i.e., her continuous exercise of non-manipulated

rational governance.² This unity requires the consensual cooperation of her future selves out of a shared appreciation of the activity's choiceworthiness and the demands imposed by the activity's overall structure.

The distinctive kind of intentional diachronic agency that calls for the diachronic will's operation, for the capacity of genuine future-directed intentions, is agency in the mode of *internally constituted temporal unity*. The simpler kinds of diachronic agency require at most the capacity to choose and initiate an extended sequence of momentary actions in anticipation of some distal outcome (either the brute causal effect of the initial action—see the lit-fuse, or the outcome of a concatenation of mere local responses to proximal surroundings—see the highway scenario). In more complicated cases, one might create in advance some manipulative arrangements to secure the reluctant contribution of one's future selves. But even so one does not *sustain* the activity throughout its unfolding out of both (a) a stable non-manipulated appreciation of the demands imposed by the activity's overall integrated structure, and (b) a continuous sense of the activity's choiceworthiness as a *unified* activity.

The problem with an externally imposed unity does not lie in the need for an advanced plan that lays out the steps to be taken; it lies in the fact that the future selves are cajoled into taking these steps. One either manipulates one's future selves or takes advantage of their preferences and propensities to secure their contributions even if they are clueless about the activity's overall structure (see the highway scenario), or they do not care about this structure but have independent preferences that just *happen* to be satisfied by the same momentary action required to promote the internal unity.

This is different from the plans used in internally constituted activities. Even a 'hyperdecided' agent, who has figured out in advance all future contingencies and prepared a fully detailed plan for each (Gibbard 2003), can engage in an internally unified activity if she does not execute the plan slavishly and uncritically but uses it as a tool for the transtemporal division of deliberative labor. That is, provided she defers to the authority of the past self who first laid out the plan *as if* she delegated to that past self the labor of figuring out what to do. In such a deferral, one continues to see oneself as engaged in the activity out of a continuous sense of the activity's choiceworthiness as an internally unified activity, even if this sense is mediated by one's reliance on the earlier decision.³

In the paradigmatic instances of full-fledged intentional diachronic agency, the orientation toward the future is not simply a matter of one's concern with some long-term effects of present action. Rather, at each moment of the activity's unfolding, one *sees oneself* as autonomously and continuously engaged in the activity *as* a temporally integrated unit. One might thus be said to be continuously 'embracing' the activity as a whole. The diachronic will could therefore be better described as the faculty of future-*embracing* intentions rather than of future-*directed* ones.

² The 'non-manipulation' clause distinguishes my use of 'diachronic autonomy' from Velleman (1997, p. 47), see Ferrero (2006) and Ferrero (ms).

³ See Ferrero (ms).

3 The ontological import of the diachronic will

Internally constituted temporally unified activities are the distinctive products of the diachronic will, of the capacity for future-embracing intentions. Without the diachronic will, it would be impossible to engage in activities with this temporal structure. This is what the diachronic will is good *for*. The ontological import of this will is thus undeniable. But this is insufficient to establish the constitutive view. Neither a cognitivist nor an instrumentalist needs to deny that internal unity requires the diachronic will. But they argue that the significant advantages of its exercise are either cognitive or instrumental. To prove it they must downplay the will's ontological import, which they can do by claiming that internal unity only makes a difference to *how* we might pursue some goals but not to their very nature.

A downplaying of the ontological import seems implicit in Velleman's cognitivism. For him, the intention to φ —as the belief in one's future φ -ing—works by “tipping the balance of motivation” in support of future φ -ing by satisfying the agent's higher-order desire for self-knowledge (Velleman 2000, p. 11, 22-24; 2006, p. 318; 2007, p. 18). An intention operates in addition to existing motives that are *already* sufficient to move one to φ independently of the intentions' motivational contribution (Velleman 2006, p. 217). According to Velleman, the diachronic will does not contribute to the temporal structuring of action, it only helps one select among the equally choiceworthy alternatives that one is already inclined and able to pursue independently of one's future-directed intentions (see Velleman 2000, p. 24; 2006, p. 218, 221).⁴

The downplaying of the ontological import is also implicit in the instrumentalist view of McClennen (1990). According to him, the ultimate benefit of acting out of future-directed intentions ('resolute choice' in his terminology) is not the achievement of novel kinds of goals but the avoidance of costly self-directed manipulation ('sophisticated choice' in his terminology).⁵ Consider the standard illustration of resolute choice in a dieting scenario. An agent who decides to go on a diet faces the prospect of being tempted by fattening food in the future. She can resist temptation by a so-called precommitment, e.g., by making the fattening food either impossible or too costly to reach. Either of these solutions involves some set-up costs, for instance, the costs involved in hiding the food. McClennen suggests that the agent can avoid these costs and still achieve the same result—avoiding the fattening food—if she acts resolutely, that is, if she refrains from eating the

⁴ The mechanisms envisaged by Velleman might operate in the functioning of the reflective will, which makes our agency self-governed and autonomous but they do not affect the *temporal structure* of intentional agency.

⁵ Strictly speaking 'sophisticated choice' is not synonym of 'self-directed manipulation.' In dynamical rational decision theory, an agent is said to make a 'sophisticated choice' rather than a 'myopic' one if she embarks only on long-term plans that she expects to be able to sustain given the forward-looking bias of her future preferences. But a sophisticated agent need not be passive with respect to the constraints on the feasible actions set by the preferences of her future selves. By pre-committing, the agent might *manipulatively* induce her future selves to carry out the original plan without running afoul of the forward-looking outlooks of future selves. The resolute chooser, instead, acknowledges that future selves have some backward-looking concerns which might induce them to carry out a plan without manipulation even if they would not pursue it if they were given the opportunity for a fresh start.

fattening food just out of her earlier decision to do so. Acting resolutely, i.e., acting directly out of a future-directed intention produces instrumental benefits, gains in terms of the “standard ‘economic’ values of the conservation of resources, freedom, and flexibility” (McClennen 1997, p. 235, see 1998, pp. 24–25). But *what* the agent is able to pursue by acting resolutely is not ultimately different from, only less expensive than, what she is able to pursue if engaged in ‘sophisticated choice,’ that is, if she does not exercise her diachronic will.

Not all versions of the instrumentalist view downplay the diachronic will’s ontological novelty. Bratman (1987) argues for an instrumentalist view by claiming that the coordination-facilitating role of prior intentions and plans is “grounded in pragmatic considerations concerning the satisfaction of rational desire” and “in the long-run contribution of our getting what we (rationally) want” (Bratman 1987, p. 34, 35; 1999, p. 62). At the same time, he explicitly remarks that our planning capacity “enables us to achieve complex goals we would not otherwise be able to achieve” and that “intentions enable us to avoid being merely time-slice agents—agents who are constantly starting from scratch in their deliberations” (Bratman 1987, p. 28 and 35). But in the context of his early work on intentions, the latter statements are not extensively developed. They do not displace the primacy of instrumentalist considerations. (This is why Velleman casts Bratman as the foremost instrumentalist in spite of his recent turn toward a constitutive view, see Sect. 7.)

To establish the constitutive view one needs to oppose the downplaying of the diachronic will’s ontological import. One has to prove, first, that there are activities that can be pursued only in the mode of internal unity; second, that these activities comprise a large portion of the activities that we most cherish, and that we cherish them in virtue of their temporal structure rather than of any cognitive and/or instrumental benefits we might accrue in pursuing them. These are tasks for the next sections.

4 The necessity of internal unity

Consider an ordinary conversation. The participants take turns in making statements, challenging or inquiring about the accuracy and justification of these statements, rejecting or responding to the challenges, and so on. Each interlocutor is engaged in a temporally extended activity that I will call ‘rational discourse’. Rational discourse is necessarily internally unified. Were it not for the diachronic will, we could not engage in rational discourse. Consider unity first. An instance of rational discourse is not a mere sequence of temporally adjacent utterances. Its components are mutually related in non-local ways. In particular, rational discourse strives to achieve some coherence over its temporal unfolding. This coherence is a global feature of the process, something that spans over its past and future stages alike. This coherence is partly a matter of atemporal consistency of the claims entered in the unfolding of the discourse, partly a matter of the discourse’s dynamical adjustment to the changing context in which it unfolds. When the agent enters a claim, moves a challenge, lays out an argument, offers explanations and so on, she takes these steps by adapting in real-time to the changing demands of the

ongoing conversation. Each stage must meet both the demands imposed by the overall structure of the extended conversation, including requirements of tenseless consistency, and the constraints imposed by the steps already taken and by the limited opportunities for future development. The temporal integrity of discourse is achieved dynamically. In some cases, the integrity is achieved by radical changes and transformations, such as emendations and retractions. This integrity is a complicated function of a variety of demands: some global, some local; some time-bound, some tenseless. For instance, a particular episode of rational discourse might want to convey contents that in principle could be grasped timelessly and synoptically, let's say a complex set of related tenseless logical truths. However, for temporal beings like us, contents of this sort might be too complex to be grasped and surveyed all at once. We might therefore have to entertain and communicate them only *sequentially*, that is, under the constraints imposed by the path-dependent temporal unfolding of the causal processes that underlie our thinking and talking about these subject-matters. The clearest example of these constraints is offered by the time-bound sequential production and reception of linguistic utterances.

The features I have just illustrated show that rational discourse cannot be a merely continuous and cumulative activity. It has both the structure and the dynamics of temporal unity. In particular, because of its very nature rational discourse strives to achieve the dynamical integrity required for reconciling the fundamental tension of temporal unity: The tension between the global span of the orderly arrangement of its parts and the constraints imposed by the need to secure local and sequential connectedness among them. On the one hand, the global span of the structure offers some emancipation from the local strictures of simple temporal continuity. In virtue of the non-local and atemporal relations between the stages, some important properties of the activity might be independent of both the absolute and relative temporal arrangements of its stages. On the other hand, as a temporal process, the unified activity is under the constraints imposed by the flow of time and the direction of causality (constraints that include those imposed by the steps already taken and by the need to secure the local connections between adjacent momentary actions).

I have claimed that rational discourse is temporally unified in that it cannot be produced by the mere concatenation of temporally adjacent utterances on the sole basis of their local connections. This does not yet establish that its temporal unity is *internally* constituted. To show that rational discourse is internally unified, let's consider a variation on William James's famous example about the unity of consciousness. James originally wrote, "Take a sentence of a dozen words, take twelve men, and to each one word. Then stand the men in a row or jam them in a bunch, and let each think of his word as intently as he will; nowhere will there be a consciousness of the whole sentence," James (1950/1890, I.160). By analogy one could state the following about rational discourse, 'Take a paragraph of a dozen sentences, take twelve continuous temporal selves, and assign to each of them one sentence; then stand them in a row and let each utter his sentence in sequence; nowhere will there be a rational discourse about the whole paragraph.' Is the latter statement justified? Is it true that in this scenario of external imposition there can be no rational discourse? As long as we are restricting the possible locus of rational

discourse to the twelve selves, it appears undeniable that their combined actions do not amount to genuine rational discourse but only to the external appearance of one. However, their combined performance might still convey a unified content if the selves are taken to be reliable executors of someone else's plan (no matter whether they contribute to it by being each moved by independent considerations, by being coerced, or simply taken advantage of). If they are reliable executors of such a plan, it is no longer true that 'nowhere will there be unity of rational discourse.' But this unified discourse is to be located at the time and place where the author of the twelve-sentence paragraph originally engaged in the *internally* unified activity of its composition. Searching for the locus of original rather than derivative rational discourse requires finding an activity whose unity was secured in the mode of diachronic autonomy,⁶ an activity to which the temporal selves *at that time* autonomously contributed out of a shared sense of the stable choiceworthiness of that enterprise.

An agent might use her future selves as mouthpieces, as slavish executors of a temporally unified rational discourse that she has previously prepared. For instance, the agent might give a talk by reading aloud from a previously written paper. Her reading is a concatenation of momentary actions that are just locally responsive to the prearranged step-by-step guide provided by the written page (i.e., the reading is temporally extended in the mode of the highway scenario). This reading is only a surrogate for the rational discourse that would be proffered if its *writer* (who might not be its reader) were to produce the sentences out of her continuous direct responsiveness to the global and local demands imposed by the temporal unity of the paper's content. It is not unusual for putative episodes of rational discourse to be surrogates of a genuine internal unity that has been previously secured. We often rely on automatic procedures and scripts that reliably mimic the output of the exercise of internally unified rational discourse without actually engaging in it. The surrogate and derivative kinds of rational discourse do not exhibit genuine internal unity, however. We might still see them as actual episodes of rational discourse but only as parasitic on the *paradigmatic* form of this discourse, a form that is necessarily internally unified. This is all we need to establish to offer initial support for the constitutive view: there is at least one kind of extended activity that can only be pursued, at least paradigmatically, thanks to the diachronic will.

5 The dynamics of internal unity and the narrative

Are there any other activities that can be pursued only in the mode of internal unity? It would be impossible to proceed by considering all potential candidates piecemeal. But we can appreciate the extent of the diachronic will's contribution by showing that there is a property common to all the activities that can only be pursued thanks to future-embracing intentions. These are the activities that, as I will say, are distinctively 'narrative prone.' That is, the unfolding of the characteristic temporal structure of internally unified activities can be fully and perspicuously described

⁶ Cf. the discussion of the 'Martian marionette' in Dennett ([forthcoming](#), p. 16).

solely by a narrative. This fact helps us individuate the internally unified activities. But this does not mean that internally unified activities are necessarily described in narrative terms. Rather, they are *perspicuously* described by narrative techniques, which are otherwise pointless for activities that do not aspire to internal unity. In addition, the focus on narrative allows us to address the other outstanding issue in support of the constitutive view: It helps us better appreciate how pervasive and important internally unified activities are in our lives. Before addressing these issues let's get clear on what I mean by 'narrative.'

It is customary to contrast a narrative to a chronicle as a simpler form of recounting. A chronicle offers a merely chronological recounting of a series of events about the same subject matter. It only conveys the event's temporal juxtaposition. Instead, a narrative suggests, at least implicitly, that the events are connected in such a way that their occurrences can be seen as *significant* and *intelligible* not only in relation to external circumstances but also to the other events in the recounted sequence. The exact nature of the narrative connection is a matter of dispute. I agree with Velleman (2003) that a mere causal understanding is insufficient to explain the narrative's coherence and explanatory force. What I believe to be essential to a narrative is rather Mink's suggestion (reported but only partially endorsed by Velleman 2003, p. 8) that a narrative allows us to comprehend—in the literal sense of 'grasping together'—the sequence of events. Narrative understanding is, as Mink (1987, p. 56) writes, "a characteristic kind of understanding which consists in thinking together in a single act... the complicated relationships of parts which can be experienced only *seriatim*;" the narrative allows for a synoptic view of the events, which can thus "be surveyed as it were in a single glance as bound together in an order of significance, a representation of a *totum simul*" (see also Ricoeur 1984, pp. 65–68). A narrative purports to make the sequence intelligible by situating the recounted events in a dynamically coherent whole that extends both in the past and in the future. The events are not simply successive stages of a temporal (possibly causal) sequence; they are elements of a temporally *unified* process. Narrative devices bring out some of the relations between the events that secure the temporal unity of their sequence. Even in simpler narratives that stick to a strict chronological order, the linguistic coordination between the various descriptions of the events takes a more complex form than the mere temporal juxtaposition of a chronicle. For instance, some events receive a privileged treatment by being emphasized or described in more detail; there are changes in the pace and rhythm of the recounting; portions of the actual sequence might be cursorily reported if not entirely skipped, whereas others received a detailed description. As the narrative form becomes more sophisticated, the order of recounting might no longer match the actual chronology of events, thanks to devices such as proleptic anticipation, prefiguration, and flashbacks. All narrative devices such as the ones I have just presented have the effect of increasing the visibility of the underlying structure of temporal unity. They help show that the events play non-local roles within the larger sequence and that their occurrence should be explained, understood, and assessed in light of the pressures for dynamical integration to which these events are in principle subjected. The important conclusion is that the narrative devices contribute to the distinctive explanatory and justificatory powers

of narratives by contributing to make visible aspects of the internal unity that is supposed to keep the recounted events together.

The intelligibility made possible by narratives relates to the expectation of closure in the recounted sequence. But *pace* Velleman (2003, p. 10), I do not think that this closure is necessarily a matter of being directed toward an appropriate ending or terminus.⁷ The source of the organizing principle of a narrative is the underlying temporal unity of the process. The moments of dynamical resolution or cadence (see Sect. 2) might provide closure but do not necessarily mark the end of either the recounting or the recounted sequence. The resolution rather corresponds to those moments when the different parts of the structure fit into the proper place, when they interlock—regardless of whether the sequence is thereby going to end. The resolution marks the ‘crystallization’ of the unified structure, so to say, but not necessarily its termination.⁸

I maintain that internally unified activities are narrative prone. This does not mean that all narratives are about single unified activities nor that we can talk of internally unified activities only in narrative terms. Although it is true that ordinary narratives are usually about several activities by a variety of agents and that a narrative restricted to a single activity is rare, an internally unified activity is narrative prone in the following sense. The narrative mode of recounting, with its distinctive techniques and devices, is the only one apt to bring out the structure of internal unity.⁹ Temporally unified activities are narrative prone in that their unfolding can be *perspicuously* described, explained, and made intelligible only in a narrative. Compare them with merely continuous activities. The latter can be fully described by mere chronicles, by reports of the activities’ stages in their chronological order but with no suggestion that these stages entertain significant relations outside of the local connections with the temporally adjacent ones. It is not possible to offer a genuine narrative of a merely continuous activity. In contrast, narrative devices must be employed if one is to convey two essential features of internal activities: their aspiration to temporal unity and their distinctive dynamics. First, as suggested by Mink, the narrative devices are necessary to gain a *synoptic* view of an activity as a whole, that is, to see it as

⁷ In discussing the conclusory structure of narrative sequences, Velleman uses Frank Kermode’s example of the ticking of a clock as a sequence that we tend to perceive as organized in patterns of ‘ticks’ and ‘tocks’, where the ‘tock’ sound is perceived as ‘essentially conclusory’ (Velleman 2003, 11ff). However, this sequence better illustrates the *dynamic* resolution of a *Perpetuum Mobile*. A tock not only resolves the preceding tick, but leads to the next, in a potentially endless rhythmic sequence. The idea of resolution is better conveyed by the ‘clicking’ that might accompany the snapping into proper place of the components of a structure. This sound evokes the idea of completion not as termination but as proper fitting into a coherent compound.

⁸ The resolution might just propel a process into a novel stage with a renewed pressure for further non-terminating resolutions, in a sort of *Perpetuum Mobile* (see Sect. 2). However, unless we are like an immortal Scheherazade, particular instances of storytelling sooner or later come to an end. Their endings are likely to be satisfactory only if they correspond to a cadence in the recounted sequence. But the sequence of events that is the object of the narrative need not necessarily terminate at the point of resolution that marks the end of that narrative (moreover, when the sequence is expected to continue indefinitely the narration might terminate by fading away as in a musical *morendo*).

⁹ Narratives limited to a single activity are rare but they might provide the basic model for the more common and longer narratives (see Ricoeur 1984, 56ff).

aspiring to temporal unity.¹⁰ Second, the narrative devices are required to convey the special dynamics—the *drama*—of the unfolding of internal unity.

The drama of internal unity is reflected in the special temporal management required to sustain this unity. The global and occasionally tenseless demands imposed by the overall arrangement have to be satisfied (i) within the constraints imposed by the linear and irreversible unfolding of causal processes, and (ii) against a background of unequally distributed resources and opportunities for action. Hence, even if the overall structure of an activity might be partly indifferent to the exact temporal order of its stages, there are still restrictions on the timing and pacing of these stages. The scarcity and unequal distribution of resources together with the path-dependence of causal processes make the agent vulnerable to irremediable (and sometimes fatal) errors and failures. This threat frames the agent's scheduling and coordination of the momentary steps. As a result, the intensity of the agent's effort and concentration might vary quite drastically over time. This intensity is a function, among other things, of whether previous stages were appropriately taken, how successful they were, how fault-tolerant the present steps are, and the agent's expectations about her future abilities and opportunities. This explains why the unfolding of internally unified activities, but not that of merely continuous or cumulative ones, is *dramatic*: This unfolding comes with distinctive patterns of satisfaction and frustration, hope and fear, tension and release. Only narrative devices can aptly express and articulate the inherent drama of the dynamics of internal unity.

Because of the unique fit between narrative description and internal unity, we can better appreciate how pervasive internally unified activities are. Many of our activities are narrative prone, i.e., they can be properly described and made intelligible only in terms of some kind of narrative recounting. This is evidence of their being paradigmatically internally unified. The distinctive products of the diachronic will can thus be individuated as the temporally extended activities that are narrative prone. This does not mean that they are necessarily or habitually described in narrative terms. But they are the activities that lend themselves naturally to be described in these terms, given that only the narrative mode can help make explicit their distinctive temporal structure. This conclusion allows us to see that the ontological import of the diachronic will extends much further than making possible our engagement in rational discourse. Our lives are replete with extended activities and projects that are best described and understood in narrative terms, such as engaging in conversations, music-making, cultivating personal relationships, playing strategic games, storytelling, running businesses, etc. Not only are activities of this kind ubiquitous, but it is easy to see that this structure is common to a large number (if not the vast majority) of the activities we most value. The pervasiveness and importance are most apparent, I surmise, if we think of these

¹⁰ The activity 'aspires' to the unity since it might fail at securing it. There are genuine narratives of failure, but they are parasitic on the idea of successful internal unity. A narrative embraces the actual unfolding of the activity by implicitly setting it against the model of its successful completion. A merely continuous activity simply stops, but an activity that aspires to temporal unity might genuinely *fail* (and this threat is the necessary counterpart of the achievement of internal unity).

activities not as those with an internally constituted temporally unified structure, but as those that are narrative (and drama) prone.

I am not suggesting that we engage in internally unified activities for the sole or primary sake of their narrative-prone structure and dynamics. Oftentimes the temporal structure might be only instrumental to aims such as the obtaining of a static structure—a gothic cathedral, say; or the grasping of timeless abstract entities—mathematical theorems, say. Aims of this kind, when considered independently of how we might achieve or produce them, have no temporal structure. But agents like us—who live in time, have limited causal powers, and lack intellectual intuition—not only can achieve these aims solely by engaging in internally unified activities but they could not even conceive of these aims unless they had a capacity for internally unified activities. Hence, even if we ultimately care only about static or timeless items or states of affairs, the diachronic will is still indispensable to us in order to overcome the inherent restrictions imposed by our nature as *temporal* beings, with scarce resources and limited rationality to boot.

This conclusion already establishes the significance of the diachronic will's ontological import, even if this significance is ultimately derivative from the value of static and atemporal aims. This would not support an instrumentalist view, however. The point is not that the diachronic will increases the satisfaction of independently given preferences. It is only by exercising the diachronic will that we can even come to *conceive* of the possibility of pursuing goals of this sort, of seeing ourselves as agents who can take up the task of building cathedrals or proving theorems. In any event, the diachronic will also makes it possible to conceive and pursue goals that are inherently internally unified. The conditions of individuation and success of many familiar temporally extended activities (such as, to repeat, engaging in conversations, music-making, cultivating personal relationships, etc.) make necessary reference to the activities' internal unity. We value these activities at least in part because of their distinctive temporal dynamics and attendant drama. Even those activities that are initially undertaken as instrumental to static or atemporal outcomes might become valuable to us because of their internal unity. We might come to cherish the *building* of cathedrals and the *proving* of theorems for the sake of the inherent features of the extended activities themselves even if their successful completion might ever elude us. Finally, the intrinsic value we find in the internal unity's structure and dynamics is most evident in our care for and fascination with the activity of storytelling and its products.

6 The internal unity of the agent

The diachronic will is necessary not only to engage in temporally unified activities, but also to conduct a temporally unified existence. By analogy with the kinds of extended agency presented in Sect. 2, we can draw a distinction between kinds of extended *existence*. An agent might persist either in a merely continuous way or in a temporally integrated one. In the latter case, the agent's existence over time requires more than an uninterrupted line of psychological and/or bodily connections. Temporal integration requires that the temporal stages fit together according to an

overall arrangement, rather than just being continuous thanks to their local connections. In other words, a temporally integrated existence has temporal unity. The analogy also extends to the difference between external imposition and internal constitution. An agent persists in an internally integrated way only if the global constraints are satisfied by her temporal selves out of shared and stable understanding and autonomous acceptance of those constraints. That is, the constraints are not to be satisfied by self-manipulation or by accident. The selves have to see themselves as autonomously partaking of the project of sustaining the existence of a temporally extended *and* temporally integrated agent. When this happens, the temporal selves can be said to *identify* with each other *over time*.

The structural parallels between the unity of an activity and the integrity of an agent also extend to the dynamics of these processes. An integrated existence is subject to the same coordination problems as a temporally unified activity, that is, to the same fundamental tension (see Sect. 4) between (a) global (sometimes tenseless) structural constraints, and (b) the local and time-bound dependencies due to the connections between adjacent stages and to the linear and irreversible unfolding of causal processes. A temporally integrated existence is thus as much prone to the narrative mode of description and understanding and as much subject to the inherent drama of internal unity. Likewise, we can speak of closure and resolution in the structure of the agent's extended existence as well. However, it is unnecessary (and relatively unusual) for the units of integration to cover the agent's entire biological life on the basis of some unique grand narrative.¹¹

The structural similarity between the internal unity of activities and the temporal integration of agents is not accidental. It is only by engaging in internally unified activities that an integrated existence can be manifested and expressed. How else could one conduct the life of a genuinely integrated agent if not by pursuing internally unified activities? There is something idle with an agent who purports to be genuinely temporally integrated although her life is just a sequence of mere cumulative activities. It is no accident that rational discourse offers the central example of the diachronic will's ontological import (see Sect. 4). Rational discourse is not just a generic internally unified activity. Within it the rational agents' temporal integrity finds the most explicit embodiment (not to mention that it is the only activity where this integrity can be articulated and reflected upon, two processes that often result in a more stable, more extended, and possibly deeper temporal integrity).

To sum up, what the diachronic will ultimately makes possible is a life in the mode of temporal integrity and identification. This is not a claim about the agent's temporal *identity* but about a particular mode of identity, the one required if the agent is to continue to *identify* over time with her temporal selves in the mode of internal unity. This conclusion offers further support for the constitutive view. The nature and rationale of the capacity for future-embracing intentions are to be appreciated in terms of what this capacity makes possible. Its exercise is required

¹¹ The idea of internal unity does not specify the *temporal horizon* of its units, that is, how far in the past and in the future their boundaries are located. In addition, different temporal units of action and existence, with disparate temporal horizons, might overlap and conflict within stretches of a single biological existence (see Velleman 2006, pp. 222–223).

not only to engage in the narrative-prone activities but also in a distinctive kind of temporal existence: a temporally integrated (and narrative prone) existence. It is the very possibility of engaging in these kinds of activities and conducting this kind of life that shows both the import and the importance of the diachronic will, regardless of whatever cognitive or instrumental benefits we might accrue by its exercise.¹²

7 Comparison with alterative accounts

The view defended in this paper has affinities with the account of the diachronic will's role championed in Bratman's more recent work. At least since Bratman (2000a), Bratman has been moving away from his earlier instrumentalist view. He is now more adamant on the planning abilities' contribution to "the constitution and support of continuities and connections characteristic of the identity of the agent over time" (Bratman 2000a, Sect. 5, cf. 2001, p. 219). He explicitly acknowledges that "temporal extendedness is a deep feature of our agency" and that a creature lacking planning abilities "would be *incapable* of many of the forms of living we most value" (Bratman forthcoming-a, Sect. 9, my emphasis). My version of the constitutive view is focused on the contribution of the capacity for intentions on the temporal structure of specific activities. It applies to the agent's structure only indirectly. Bratman tackles more directly the issue of the agent's identity. This difference might ultimately reflect only the two distinct points of entry in our investigations of the diachronic will. There is, however, a more significant difference in the understanding of the structure of intentional diachronic agency. Whereas I focus on internal unity, Bratman is not as specific in characterizing the kind of diachronic agency made possible by planning. He seems to locate the crucial divide in the transition from moment-to-moment actions to generically extended ones, and from time-slice agents to agents with a generically temporally extended existence. In contrast, I think that the diachronic will's truly distinctive contribution comes only with the acquisition of internal unity rather than with the simpler emancipation from the confines of the present moment. The truly transformative powers of our planning capacities require more than seeing one's existence as that of "one and the same agent" (Bratman 2000a, Sect. 4), they require seeing one's existence as that of one and the same agent *in the mode of internal unity*.

The latter qualification suggests some emendations and integrations of Bratman's view. For instance, consider two central features of his view, the norm of agglomerativity and the role of self-governing policies. Bratman (1987) correctly argues that intentions are under a rational pressure for agglomerativity. If an agent has both the intention to φ and the intention to ψ , she is rationally required to have the intention to $(\varphi$ and $\psi)$. The agglomerativity puts pressure against conflicting plans. It seems easier to comply with agglomerativity for a merely continuous agent.

¹² To value the engagement in temporally unified activities for its own sake does not mean that one is to maximize the actual exercise of the diachronic will. Often, it is actually less costly to rely on its surrogates. When internal unity is simply instrumental to goals that could be achieved by a simpler tracking mechanism (as in the highway scenario), we are happy to do without the burdens of continuous guidance in the mode of internal unity.

Some potentially conflicting plans might be scheduled to be pursued in portions of one's existence that are only loosely related to each other, thereby minimizing their interferences. But for a temporally integrated agent the pressure to agglomerate is primarily directed at making her plans compatible within that portion of her existence that is the actual unit of integration. Hence the norm of agglomerativity of intention might end up putting stricter demands on the combination of intentions when the constraints of temporal unity are taken into account.¹³

Second, the distinction between the agent's persistence as mere continuity and as temporal integration affects Bratman's argument for the importance of temporally extended agency in explaining the attitudes' *agential authority*, in explaining how the attitudes that guide thinking and action "have authority to speak for the agent" (Bratman 2007, p. 4). Bratman argues that a structure of attitudes speaks for the agent if it secures the psychological connections and continuities—the 'Lockean ties'—constitutive of the agent's temporal identity. Plans and policies are partly responsible for inducing the organization and coordination in the agent's extended life by constituting and supporting the Lockean ties (Bratman 2000a, Sects. 4-5). A special role is played by 'self-governing policies,' policies explicitly concerned with the functioning of desires in the agent's extended life (Bratman 2000a, Sect. 6). The agent's reflective endorsement or rejection of a desire is a matter of her carrying out the relevant self-governing policy. This policy speaks for how the agent stands with respect to that particular motivation since it contributes to securing the agent's own existence over time.

The distinction between the different kinds of temporally extended existence raises some doubts about the central role Bratman assigns to self-governing *policies*. If an agent persists in the mode of mere continuity, the structure of attitudes that can speak for the agent need not be grounded on stable policies. The required Lockean ties might have a rather limited time span and be based on individual short-term plans as much as on general long-term policies. A merely continuous agent need not put any premium on having stable policies. The structure of attitudes that speaks for her might have a limited temporal horizon. Within a merely continuous existence, whether there are stable policies or not is just an accidental feature of the agent's history rather than a determinant of agential authority. This authority requires only the presence of the minimal structure of attitudes that can be said to sustain, even if only for a short time, what is recognizable as an *agential* stand on *present* motivation. For the merely continuous agent, her temporal extension is not essential to her being the kind of agent that she is. And to the extent that some extension is required for any agency at all, this extension need not be secured by policies. The relation between agential authority and temporally extended agency, therefore, appears somewhat loose for mere continuous agents (a conclusion that might lend some support to Velleman's suggestion concerning the primacy of the reflective dimension of the will over the diachronic). The story is different when we consider a temporally *integrated* existence. Here the structure of attitudes that speaks for the agent must be analyzed in terms of its distinctive diachronic features. The attitudes that speak for the agent are indeed those that constitute and sustain her existence in

¹³ For the relation between agglomerativity and the unity of agency, see Ferrero (forthcoming).

the mode of temporal integration since the structure of internal unity is essential to the agent's practical standpoint (rather than an accidental feature of her temporal trajectory as in the case of mere continuous existence). This conclusion partly vindicates Bratman. Agential authority is shown to be in part a matter of agency's temporal extension, but only in the mode of internal unity. Nevertheless, this conclusion is not sufficient to support Bratman's view about the central role played by self-governing policies. Although policies are part of what is required to sustain temporal integration, they seem to be just one among the diachronic will's many manifestations. Singular intentions and plans contribute—on an equal footing with policies—to constituting and sustaining the structure of attitudes that speaks for the temporally integrated agent. Therefore Bratman's emphasis on general self-governing policies does not appear warranted. True, because of our biology and psychology, we have to deal with recurrent needs and motives (including 'all-purpose disrupters,' impulses and distractions that might interfere within any activity). *General policies* are suitable for dealing with these recurrent motives, but the agent's reflective endorsements are neither exclusively nor predominantly directed towards them. General policies are far from exhausting the structural complexity of temporal integration. The Lockean ties that secure the existence of a temporally integrated agent depend on the full deployment of the diachronic will, on the complete range of our planning capacities: from particular intentions to general policies.¹⁴ Agential authority is grounded in the diachronic will's *full* operation, not just in self-governing policies.¹⁵

Let's consider now Velleman's view. Velleman has explicitly linked the operation of the motive of self-knowledge with the fulfillment of the agent's *narrative* self-conceptions. He claims that, in carrying out the intention to φ , one satisfies one's higher-order desire for self-knowledge because it is only by φ -ing that one does what one is thinking of doing. However, the kind of self-knowledge one acquires by φ -ing goes beyond the fulfillment of predictions about one's own

¹⁴ My suggestion is more radical than Bratman (2002a, Sect. 9)'s inclusion of weaker 'quasi-policies'. The demands for consistency and coherence need not be relaxed. Individual intentions and plans might actually come with more restrictive demands given that they determine a specific kind of internal unity (something that a generic policy might be unable to do). I am suggesting a more inclusive outlook, one that gives pride of place to the full range of our planning capacities and might include, at one extreme, such things as full-blown life-plans and 'practical identities' (cf. Bratman 2002a, fn41).

¹⁵ A feature of Bratman's theory affected by the nature of internal unity is the 'no-regret condition'. Bratman (1999; 2000b, p. 255) claims that in determining whether to stick to a prior intention an agent should consider whether she is going to regret her decision 'at plan's end'. This condition is alternative to Gauthier (1994)'s claim that the assessment should be based on the overall temporal structure of the plan, including its past portions. Bratman objects that Gauthier's evaluation does not "do justice to the significance of temporal and causal location of our agency," i.e., "to the basic fact that as agents we are temporally and causally located" and thus unable to change the past (Bratman 1999, p. 73). These features are indeed central to agency, but I do not see how evaluating actions in terms of their overall temporal structure runs afoul of the temporal asymmetry in causal control. What the agent is to do at any one time is a function *both* of what she can affect causally in the future *and* of the significance that her future conduct would acquire given its place in the overall temporal structure of her course of action (including its past stages). The no-regret condition is problematic if it requires an exclusively forward-looking outlook in the assessment of future conduct that obscures the constraints imposed by internal unity. The condition might however be warranted in those special scenarios (including possibly the 'toxin's puzzle) where the agent cares only about accumulation or the activity is not internally unified.

conduct. It includes the acquisition of an explanation and, more importantly, of an understanding of this conduct. This understanding is possible because the intention to φ at the future time f is acquired by determining which course of action ‘makes most sense’ to oneself among those one deems to be already sufficiently motivated to pursue at f . As a result, when one φ 's at f , one understands what one is doing *as* the action that makes most sense to do at that time. For beings like us, actions make sense to the extent that they fit into coherent storylines and narratives (Velleman 2000, pp. 26–28; 2006, pp. 218–219, 249–250, 318). The cognitive operation of intentions is sensitive to the activities’ narrative structure and contributes to bringing about this structure.

Does this mean that the cognitive view has the resources to account for internal unity as the distinctive product of the diachronic will? I think it does not. The higher-order motive of self-knowledge and self-understanding operates in a way that is neutral with respect to the substantive ways in which agents try to make most sense of their conduct. The cognitive mechanism underlying the effectiveness of intentions consists of two combined functions: (a) doing what one is thinking of doing, and (b) thinking of doing what would make most sense to do (Velleman 2006, p. 249). Hence, intentions do not depend on the specific sort of understanding conferred by a narrative and its internal unity. Simpler kinds of agents might be endowed with a will in Velleman’s sense—and thus be self-governed, even if they lack the capacity to engage in internally unified activities. So long as they can make sense of their conduct in terms of an extended agency of a simpler kind (say, as a merely cumulative one), they make the same use of the motive of self-knowledge as more complex extended agents like us. Velleman’s acknowledgment of the role of the narrative does not undermine my contention about the weakness of the cognitive view. The basic cognitive mechanism envisaged by Velleman is neutral on the issue of internal unity. Therefore, it lacks the resources to account for the distinctive temporal structure of our will.¹⁶ This is not to argue against the cognitive understanding of the *atemporal* features of intentional agency—as self-governance and autonomy might be—that are Velleman (2007)’s primary focus. The constitutive view of the *diachronic* will might still be compatible with a cognitive view of the *reflective* will. But if so, a complete theory of the will would not be as unitary as Velleman would like it to. For it might have to combine two separate accounts of what appear to be two distinct and at least partially independent dimensions of the will.

Finally, consider the relation between internal unity and McClennen’s resolute choice (see Sect. 3). Some features of resolute choice might suggest that McClennen might be speaking of something similar to internal unity. As McClennen (1998, p. 18) explicitly remarks, the convergence of the concerns of the temporal selves engaged in resolute choice is neither accidental nor imposed, but rather acquired via rational deliberation; second, the resolute chooser has a *global* rather than incremental understanding of the activity as a whole, including its past (1997, p. 216); third, resolute choice is a ‘new form of activity’ (1998, p. 33). In this paper I

¹⁶ Velleman might protest that this conclusion ignores the fact that, without the belief that one is going to φ , there is no point in coordinating with the intention to φ (Velleman 2006, p. 271; 2007, 14ff). Although I doubt that this is true, it is hard to see how this could help account for the rich temporal structure of internal unity.

have argued that internal unity as analogous features: it is non-imposed, global, and novel. This is not sufficient, however, to make resolute choice an instance of internal unity. Resolute choice is modeled on a *bargaining* between temporal selves. The earlier self and the later one find mutual advantage in sticking to the original plan but only as a matter of an instrumental compromise on the basis of their otherwise divergent agendas. The two selves do not see the activity as being choiceworthy on the basis of a set of shared ultimate concerns. Nor do they see the activity's internal unity as essential to the outcomes that make the activity choiceworthy in the first place. One need not pursue an internally unified activity only for its own sake. Many internally unified activities are pursued instrumentally. But when so, they are instrumentally pursued by temporal selves out of a *shared* ulterior end and out of a *shared* appreciation and acceptance of the demands imposed by the internally unified activity as such (that is, as an activity with a distinctive temporal structure that spans over its entire temporal unfolding). In contrast, the convergence of concerns in resolute choice is instrumental through and through. By modeling the relation between the selves as calling for a bargaining, the selves are from the outset set apart as sources of ultimately divergent concerns. Their concerns come together only insofar as each self is to gain from the extended activity, a gain to be judged from the distinct practical standpoint of each separate self.

The advantage gained by the selves who engage in a genuinely temporally unified activity, instead, is *shared* rather than simply mutual. These selves have a unique practical standpoint, and they see the activity to be worth promoting in light of its distinctive temporal structure.¹⁷ In contrast, the background for resolute choice is one in which the temporal selves' ultimate concerns are assumed to be divergent. If this picture were adopted as diachronic agency's general model, it would offer a distorted view of the diachronic will. True, there are many situations where we deal with future selves who are reluctant to stick to earlier plans, given that they are moved—even if only temporarily—by divergent preferences. But this scenario does not make us appreciate the truly transformative powers of the diachronic will. The diachronic will is the faculty that makes possible for us to overcome the ontological limitations of temporal agency, the limitation of an agency that either is confined in the present or it projects into the future by mere continuity. Obviously, the diachronic will's job is not guaranteed to succeed. But the rational techniques to manage this resistance—including 'resolute choice'—should not be confused with the diachronic will's characteristic operation. The diachronic will ushers us into a novel kind of diachronic agency. This agency often faces opposition because of our impulsiveness, hyperbolic temporal discounting,¹⁸ and the underdetermination (and potential conflict) between the different possible temporal horizons of internal unity itself (see fn 11). The techniques of remedial self-control, however, are not to be confused with the diachronic will's fundamental contribution. If anything, the deployment of these techniques makes sense only

¹⁷ The *shared* advantage is often measured in a currency set by the activity itself. An internally unified activity is often made choiceworthy by the nature of goals that can be conceived of and pursued only thanks to the activity's internal unity.

¹⁸ On hyperbolic discounting, see Ainslie (2001) and Ferrero (2005).

against a background in which the diachronic will is already established and, to some extent, successful.¹⁹

In closing this comparison with the instrumentalist view, I want to stress that the constitutive view does not deny that the diachronic will's deployment has instrumental benefits. But it claims that they are not as significant as its ontological import. The instrumental benefits are particularly evident when we consider the diachronic will's effects on merely cumulative goals (such as going from point A to point B, optimizing food intake, or maximizing financial returns). In these cases, internal unity allows the agent to pursue accumulation in an optimal or satisficing way. For it is only by appreciating the activity as a whole that the agent can intentionally forgo smaller but closer rewards in exchange for later but larger ones. If the focus is only on optimization, the internal unity does not appear to affect the agent's basic preferences. The agent does not need to conceive of her activities as internally unified in order to prefer a larger accumulation to a smaller one. Moreover, what she is set to maximize is the satisfaction of preferences given independently of the desire for maximizing their satisfaction. The trouble with the instrumentalist view is that it fails to appreciate that the diachronic will's effects extend well beyond its making possible the deliberate maximization of independently given preferences. Optimization (and more generally satisficing) is just one among the many kinds of internally unified and narrative-prone projects that the diachronic will makes possible.

8 The explanatory strength of the constitutive view

Ideally, a view of the diachronic will should tell us more than what the will is primarily good for. It should also help us with these two questions: (a) How do intentions exercise decisive influence on future conduct? (b) What are the grounds for the characteristic norms of intentions (such as means-end coherence, belief-intention consistency, and agglomeration, see Bratman 1987; 1999)? An attractive feature of Velleman's cognitive view is that it aspires to offer an answer to these questions in purely cognitive terms. Can the constitutive view be as explanatorily strong as the cognitive view purports to be? Let's consider first the question of how intentions are supposed to determine future conduct. A view like Velleman's does not simply claim that the diachronic will benefits us by increasing our self-knowledge but that the will *operates* via its cognitive effects: An intention to φ —as a belief that one will φ —offers a decisive contribution to the motivation to φ because, at the time of action, φ -ing is what best satisfies the agent's standing higher-order desire for self-knowledge. Something similar holds of McClennen's instrumentalism. For him, the diachronic will does not just produce instrumental

¹⁹ Sophisticated choice (see Sect. 3 above) does not guarantee internal unity. Because of her forward-looking orientation, a sophisticated agent chooses in light of both present *and* future expected outcomes of her conduct. Hence, at the time of action she might think that her conduct is internally unified *from that moment on*. But she cannot pursue it under this guise: her future selves see the activity as temporally unified only starting from *their own* present moment. The constant resetting of the temporal horizon induced by the mere passage of time undermines the possibility of genuine internal unity.

benefits but operates in each case by providing instrumental benefits. As shown in Sect. 3, the resolute agent is moved to φ because of the benefits of acting out of her prior decision, i.e., because by φ -ing she is thereby spared the costs of precommitment.²⁰

At first, it might appear that a constitutive view offers a structurally similar story about the operation of intentions. Given that internally unified activities are among those that we most cherish and that we often care about distinctive features of internal unity per se (such as its potential for drama), it might seem that we have a standing desire for internal unity as such. If so, a future-embracing intention to φ at f would normally offer a decisive consideration to φ in that the agent at f can satisfy her desire for closure, her desire for the achievement of temporal unity, only by φ -ing. An account of this sort would have the same structure as the cognitive and the instrumental views, which claim that the decisive influence of an intention is mediated by the satisfaction of an *additional* standing desire of the agent (whether for self-knowledge or for maximization of preference satisfaction). I doubt, however, that we normally discharge our intentions on the basis of a standing higher-order preference for the internal unity of our projects. Not only do I doubt that we have such a preference, but I also think that there is something troubling with the suggestion that future-embracing intentions are effective by generating, via the satisfaction of standing higher-order preferences, additional and potentially bootstrapping reasons or motivations.²¹ The constitutive view does not assume that intentions operate by satisfying an additional desire for internal unity. Rather, it claims that the agent is moved to promote the unity of any particular extended project *as part and parcel of* her being moved by what makes that project choiceworthy in its own terms. As long as the choiceworthiness of that project is due, at least in part, to its internal unity, this unity is promoted by the diachronic will as a constitutive feature of that very activity rather than out of a distinct desire for internal unity per se. The constitutive view does not posit any special motivational mechanism to explain the operation of the diachronic will. The diachronic will is the capacity to sustain internally unified activities in virtue of a stable appreciation of these activities' specific merits and of their distinctive temporal structure.

A distinct concern with internal unity as such might affect the agent's conduct at times. But this normally happens when what is at stake is the *general* operation and existence of the diachronic will. That is, when the agent is concerned with acquiring, instilling, repairing, or sustaining the very capacity for future-embracing intentions. But the import of the capacity as a whole does not affect its ordinary operations. This is an important difference with Velleman and McClennen. They see no discontinuity between the overall import of the diachronic will and the concerns

²⁰ Bratman's instrumentalist view does not run into this problem: for him, the intention to φ moves the agent to φ because of habits and propensities of non-reconsideration, not by way of a desire for the instrumental benefits of steadfastness. Bratman (1987, p. 52, 65–66) invokes instrumentalist considerations only in justifying the rationality of our general reliance on habits and propensities of non-reconsideration.

²¹ See Bratman (1987). In Ferrero (ms) I argue that decision-based reasons as 'exclusionary reasons' might avoid unwanted bootstrapping. But these reasons are grounded not on a standing desire for internal unity but on the demands of transtemporal division of deliberative labor.

that move the agent in her ordinary activities. For them, the overall import of the diachronic will is just the aggregate effect of the satisfaction of the standing desire (whether for self-knowledge or efficiency) that operates in each distinct episode of intentional diachronic agency. But this characterization obscures the structural difference between the diachronic will's particular exercises and its overall import. According to my view, instead, the ontological import of the diachronic will is something to which the agent need not be responsive in the capacity's ordinary operation, but only when the capacity *as a whole* is at stake, as it happens for instance when the capacity is the target of a general threat, challenge, or criticism.²²

Let's now consider the second important explanatory task for a theory of the diachronic will, the grounding of the characteristic norms of intending. Velleman claims that the norms of theoretical rationality are the grounds for the norms of intending. Can the constitutive offer a similar account? A promising start in this direction can be found in Bratman (forthcoming-a). According to Bratman, the characteristic norms of intending can be derived, in a non-cognitivist fashion, from considerations on the nature of what Bratman calls 'planning systems.' The basic role of a planning system is the effective control and coordination of action over time. A system of attitudes that would not be responsive to the pressures for this coordination *would not be* a planning system, Bratman claims (forthcoming-a, Sect. 8). He argues that this responsiveness ultimately amounts to being governed by the norms of intending. This conclusion can be wholeheartedly embraced by a constitutive view like mine in that it shows how the respect of the norms of intending is at least partially constitutive of intentional diachronic agency. I have no space here to discuss the details of Bratman's argument. For present purposes, all that matters is that there is at least one plausible route, in the spirit of the constitutive view, to ground the norms of intending.²³

²² The ontological import of the diachronic will might bear directly on a particular pursuit only under special circumstances, e.g., when one tries to resist temptation by considering the reputation effect of her conduct. If the current choice is seen as evidence about one's future choice in similar circumstances, one might be induced to stick to one's decision so as not to lose confidence in one's future resolve. Hence, an agent might think that any individual failure to secure internal unity might undermine, by the reputation effect, the general effectiveness of her capacity for future-embracing intentions. But *pace* Ainslie (2001), the diachronic will does not normally operate in this way. The reputation effect is only a technique for regaining or reinforcing a weak strength of will or a willpower (see Ferrero 2005). Similar considerations apply to Velleman (2006, pp. 272–274)'s suggestion that our 'constancy'—the disposition to carry out future-directed intentions—is grounded on our incentive to give ourselves evidence of our future reliability. As long as one can assume the stability of one's appreciation of the reasons for action (which is the default condition for the operation of the diachronic will), one can rely on the future willingness to take part in the unified activity out of one's future appreciation of the original merits of the activity rather than out of a concern for one's own reliability (see Ferrero *ms*).

²³ The constitutive view might contribute to a Bratman-style defense of the norms of intending by suggesting a more fine-grained articulation of these norms. Extended agency in the mode of internal unity seems to come with a more restrictive set of norms than those distinctive of the 'planning systems'—to use Bratman's term—that engage in simpler kinds of extended agency. Compliance with means-end coherence and belief-intention consistency is already required for present-directed agency. More complex forms of diachronic agency might require more elaborate sets of norms (including norms of agglomeration). I think that Bratman would not oppose the idea that different kinds of diachronic agency come with different sets of norms (see Bratman, forthcoming-b). This idea, however, might pose a serious challenge to cognitivism if the norms of theoretical rationality were insufficient to account for the temporal structures of the various kinds of diachronic agency.

9 The future orientation of agency

A recurrent theme of this paper is that full-fledged intentional diachronic agency is not a just a matter of future-*directed* action. Oftentimes the distinctive temporal properties of our agency are characterized in terms of a simple emancipation from the present-bound character of animal agency. But this is an inaccurate picture of the future orientation distinctive of our agency. To begin with, this picture does a disservice to animal agency, which already enjoys a basic orientation toward the future. There is a sense in which agency is fundamentally future oriented in that it is always about achieving or sustaining something in the future—even if only the immediate one (see O’Shaughnessy 1980, II.311). Moreover, even simpler actions are rarely, if ever, instantaneous. But this is not all there is to the future-orientation of animal agency. Many animals engage in complex extended behaviors. They have evolved strategies for the efficient pursuit of distal goals, as shown by the complex and extended patterns of navigation, migration, predation, and foraging of many animals. This should not be surprising. Although natural selection lacks foresight, there are usually selective pressures against excessively short-sighted behaviors. Nevertheless, the complex, extended, and future-directed behaviors of non-human animals do not seem to be genuinely unified in the internal mode. Animal behaviors rather appear to be complicated versions of the basic kind of temporal extension underlying simple continuous accumulation. There are several ways in which cumulative activities can approximate and mimic the structure of genuine internal unity. First, thanks to distal perception, even simple animal actions can be responsive to distal circumstances. Second, animals often carry out extended activities according to an ordered sequence of separate stages that are locally prompted by environmental cues, physiological triggers, internal clocks, or delaying physiological mechanisms. A ‘staging’ of this sort might take an organism through a variety of specialized and somewhat flexible routines, which can get refined to a remarkable precision both by evolution and individual learning. Third, animals often operate on the basis of fast and frugal heuristics that approximate, sometimes to a surprising extent, the optimal behavior expected of a fully rational planning agent (see Sterelny 2003, pp. 89–90). Fourth, animals might navigate, in some cases over rather long distances, on the basis of a procedural representation of spatial information and, possibly, cognitive maps.²⁴ Finally, some animals might be able to perform basic comparisons between the long-term effects of alternative courses of action and choose accordingly, even if they can do so only over a limited time span and in response to what is presently available to them in perception. They lack a genuine kind of anticipatory cognition, but they might have evolved a particular sort of tracking ability. They might track proximal cues that set them on extended courses of continuous activity whose outcomes favorably compare to those that

²⁴ The homing behavior of salmon, for instance, is a case of a sequence of mere local responsiveness with a long-range cumulative effect that mimics the product of temporal unity. According the ‘olfactory hypothesis,’ when salmon swim away from home they acquire a sequential olfactory map of their itinerary. On their return journey, they proceed to trace their way back by continuing to adjust their direction in response to mere local olfactory perceptions so as to match the sequential olfactory map in reverse order.

would be achieved if the animals enjoyed an actual anticipatory cognition. However, the ability for this kind of proto-instrumental reasoning is not yet a full-fledged planning capacity. Some animals might perform a calculation concerning the distal effects of initiating a certain routine or sequence of movements over an alternative one (e.g., moving toward a larger but further heap of food in alternative to a smaller but closer one) but they do not appreciate that the two courses of action consists of steps that are to be coordinated in light of their overall unity, a unity that embraces both the activity's past and future stages alike (Suddenforf and Corballis 2007).

The capacity to appreciate extended activities as temporal units might have evolved separately from the capacity to engage in the cumulative extended activities I have just illustrated. The cumulative activities are sustained by a continuous active guidance, but one that is not responsive to the global structure of an activity. An even simpler kind of agency is that of ballistic actions; they do not need to be sustained over time since, once the first step is taken, they unfold outside of the agent's control. Ironically, it might be that the inevitable ballistic nature of some actions might have ushered the development of the capacity to appreciate the global structure of extended processes and, eventually, of the diachronic will. If something along the lines of William Calvin's intriguing hypothesis about the role of stone-throwing in the development of our planning ability is correct, the distinctive operation of the diachronic will—the capacity for the continuous guidance of extended and unified activities—might have evolved only as a byproduct of a proto-planning ability for *ballistic* movements, that is, for movements that do *not* exhibit the continuous guidance paradigmatic of the full-fledged diachronic will.²⁵

Two important lessons can be learned from these speculations about the possible natural history of the diachronic will. First, we should not overestimate how successful simpler kinds of agents might be in approximating the conduct of those agents who are equipped with sophisticated kinds of foresight and planning. This is a lesson that applies to our agency as well. We should not underestimate the extent to which in our ordinary life we might sustain complex extended activities without the actual help of the diachronic will. Nevertheless, once the capacity to appreciate and sustain internal unity in action has developed, we can use it to recruit (and thereby take responsibility for) some mechanisms of our clever but simpler animal agency to support the more complex internally unified projects. We often rely on our animal agency to secure the background conditions for internal unity and to provide surrogates and backs-up for the paradigmatic and full-fledged operation of

²⁵ According to Calvin (1983, see also Osvath and Gärdenfors 2005, p. 5, Suddenforf and Corballis 2007, Sect. 6), stone-throwing played a crucial role in the evolution of our planning abilities. Throwing objects accurately in order to hit a distant target is a deceptively simple task that only hominids have been able to master. Accurate throwing requires a sophisticated neural mechanism to calculate in advance the coordination of a sequence of motions that follow each other too rapidly to allow for correction once the throwing has began. The thrower needs to calculate the correct sequence of motions in advance taking into account the mutual and global constraints of the stages of this unitary process. She needs a complete 'plan' of a sequence of motions that once underway can no longer be guided. According to Calvin, once the neural mechanisms for this advanced coordination had evolved, they became available as the basis for appreciating structures (both in thought and action) whose parts are orderly and globally arranged (the development of syntax being a case in point).

the diachronic will. The second lesson is that the diachronic will, like other essential features of our life form, might be an accidental product of exaptations and other serendipitous turns in our evolutionary past. The common defects and imperfections that mar the ordinary workings of the diachronic will are testimony to the scattered and unplanned evolution of our capacity for temporally unified planning.

10 Conclusion

The constitutive view tells us that the distinctive contribution of the diachronic will is to make possible a novel form of extended agency and of extended existence, but this does not yet answer the original question: Is the diachronic will a good thing to have and to use? Should we cherish and promote our ability to engage in internally unified activities? I have claimed that this ability matters greatly to us. It allows us to conceive of and pursue many of the activities that pervade our lives and that we most value. Moreover, it makes possible for us to live in the mode of temporally integrated existence. The diachronic will is thus essential to the distinctive shape and temporal structure of our lives. It produces the kind of future orientation and temporal extension of agency that helps us elevate from mere animality. The diachronic dimension of the will, therefore, has transformative powers that rival in magnitude those of its reflective dimension. In analogy with what Velleman claims about the reflective will, we must conclude that the diachronic will should command our awe and respect. But should we also echo Velleman in claiming that the diachronic will is not necessarily a good thing?

The answer to the latter question depends on how we compare our temporal agency and existence to those of simpler organisms. The comparison is not idle and the answer is not straightforward. Our status as temporally integrated agents is not to be taken for granted; we are not born into it and, once acquired, it must be sustained. Given the time and resources we devote to instill and maintain substantial degrees of temporal unity in our lives, it appears that we deem this kind of existence worth the effort. But are we justified in thinking so? Here is where we should appeal to the comparison with the temporal structures of different life forms. Unfortunately, this is a problematic comparison. The basic transitions in the history of life have marked profound transformations in the temporal structure of agency, but they have come together with trade-offs between some basic appealing features of existence. Consider first the emergence of biological individuals as multicellular organisms with cell differentiation and sexual reproduction. This transition came at the price of giving up the potential immortality of lineages of simpler biological units (such as prokaryotes and sequences of DNA) (Buss 1988). Individuality is gained at the price of the pre-programmed death of the individual (Sousa 2005). Second, animal agency comes at the price of losing the more immediate relation with the environment and the more resilient metabolism of plants. Animals live in a world that is at some spatial and temporal remove; a distance that they try to bridge by distal perception, motility, and the deferred satisfactions of needs. As a result, animals are organisms bestowed with sentience and wakefulness, with appetites and emotions. The novelties of animal agency come together with the enjoyment of a

novel sort of freedom, but in exchange, animals have to put up with a more precarious and dependent metabolism, a more hazardous life, and the negative aspects of sentience, such as the afflictions of hunger, fear, and pain, not to mention the very possibility of the frustration of desire (Jonas 2001).

Finally, our emancipation from mere animal life consists in the superimposition of the structure of internal unity over the temporal continuity of the human animal. I have earlier emphasized the positive ontological import of the diachronic will, its making our existence open to a wealth of otherwise unconceivable and unattainable goods. But here is the trade off: temporal unity exposes us to the threats of real drama, crushed hopes, unfulfilled expectations, unhappiness, life-embracing failures, and unprecedented forms of misery and suffering—which go beyond the mere cumulative effects of temporally extended pain.²⁶ On balance, these negative aspects might be more than compensated for by the possibilities the diachronic will opens up to us. The risk of incurring these miseries might be the necessary counterpart of our distinctive temporal attainments, the negative complement required to lend value and significance to our extended pursuits. But the extent of what is given up in exchange for the diachronic will invites the appropriation of Velleman's metaphor about the will presented at the outset: The diachronic will is like a magic wand, it has amazing transformative powers but it is not an unalloyed good. It should not be surprising, therefore, that in our unhappiest moments we are often tempted to cast a nostalgic look back at the lives of simpler organisms, which are spared the sorrows and the curses—but also the joys and the blessings—of the diachronic will.²⁷

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²⁶ On the difference between pain and suffering, see Velleman (1991) and Dennett (1996, p. 161–168).

²⁷ Previsions versions of this paper were presented at department of Philosophy at Stanford University, at the conference on Action Theory at Zurich in April 2005, at the Humanities Fellows Seminar at Stanford University in 2006. I thank the audiences for their comments and criticisms, especially Ulrich Bach, Michael Bratman, Christian Budnik (my commentator at Zurich), Katherine Dunlop, David Hills, Christopher Hookway, Agnieszka Jaworska, Jessie Labov, Seth Lerer, Michael Rawson, Kathy Richmond, Bruce Rusk, Tamar Schapiro, and Elliott Sober. Thanks to William Labov for a stimulating workshop on narrative. Thanks to Elijah Millgram for an intriguing conversation about narrative and identity. Thanks to an anonymous reviewer for pressing me to clarify my thoughts about diachronic rational choice theory. I am grateful to Nate Sharadin and Roy Blumenfeld for their meticulous proofreading. This paper was written while in residence at the Stanford Humanities Fellows Program (thanks to Anna North, administrator and fellow). I am especially grateful to the program's direction, Seth Lerer, for creating a most stimulating and enjoyable intellectual environment, and for fostering a truly constructive exchange of ideas across the humanities.

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