

Life-extending enhancements and the narrative approach to personal identity

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ABSTRACT

Various debates on the desirability and rationality of life-extending enhancements have been pursued under the presupposition that a generic psychological theory of personal identity is correct. I here discuss how the narrative approach to personal identity can contribute to these debates. In particular, I argue that two versions of the narrative approach offer good reasons to reject an argument against the rationality of (certain forms of) life-extending enhancements.

Some people want to live forever. Others would be happy with just a limited temporal extension of their lives, possibly accompanied by a decrease of the current negative aspects of ageing. What the former also seem to desire is for they themselves—the same people who have such desires—to have their lives extended. For instance, if Faust expresses his desire to live forever, what he wants is for Faust himself to be able to live forever, that is, Faust is interested not in forms of proxy survival or proxy life-extension—think about expressions such as ‘I want to be immortal in the memory of the living’—but rather in forms of *personal* survival or *personal* life-extension. Faust wants his life to be extended *and* to be the same person throughout the additional time he may obtain through life-extending enhancements.

Now, theories of personal identity and debates in practical ethics—for example, those on the morality, desirability and rationality of certain life-extending technologies and enhancements—are connected at different levels.¹ In fact, this connection is not only in terms of an application of the former to the latter, that is, an application of one theory of personal identity to a specific kind of life-extending technology to judge whether the latter is moral and/or rational to pursue. Rather, the interaction between these two areas of research—metaphysical theories of personal identity and practical ethics—is more complex. For instance, merely hypothetical life-extending technologies can inform new thought experiments that, in turn, can be useful to investigate the acceptability of certain theories of personal identity. In this paper, I focus on certain aspects of this interaction, in particular, on the theoretical connections between the narrative approach to personal identity and the current debate on life-extending technologies/enhancements. In the first part, I introduce key theoretical preliminaries to properly frame the debate at issue and several distinctions between types of life-extending technologies and enhancements, along with two versions of the narrative approach to personal identity. One of these versions is an elaboration of Marya Schechtman’s influential early

work on narrative identity.¹ Two of the key features of this approach are: (1) the person constituted by the narrative is the narrator of the narrative on which the identity of the person in question depends (I will use expressions such as the ‘protagonist of the narrative’ to refer to the person whose identity-sustaining narrative is being produced) and (2) the narrator intends the narrative to be about herself. The second version of the narrative approach discussed in this paper is an elaboration of Hilde Lindemann’s relational narrative account.^{2 3} On my understanding of her theory, the requirement that the person-constituting narrator must also be the protagonist of her own story is dropped. According to this view, there may be diverse proper narrators responsible for the identity of a person—a person need not be the narrator of her own story for her story to qualify as a proper identity-sustaining narrative. In the second section, I discuss one argument against life-extending technologies originally proposed by Walter Glannon, and I argue that if we assume either of the two versions of the narrative approach proposed below, we can offer various replies to it. I do not claim that assuming either of the proposed versions of the narrative approach is the best or only way of replying to Glannon’s argument; rather, the discussion of the argument is intended to show how the narrative approach to personal identity can be applied to the debate on life-extending enhancements.

Although my intention in this paper is not to argue in favour of the narrative approach, this paper uncovers some of the reasons that can be offered to adopt it. More specifically, I assume that the reasons we can offer to believe a philosophical theory include the plausibility of the descriptions or answers that such a theory provides when applied to various scenarios or arguments. So, if one version of the narrative approach implies that a certain argument is wrong for various reasons and such reasons are relevant and appropriate, then this outcome can count as a reason—but not necessarily as a decisive one—to adopt such a theory. In short, I assume that providing good solutions to certain theoretical problems constitutes a *pro tanto* reason to adopt a theory, including a theory of personal identity.

THEORETICAL PRELIMINARIES

Life-extending technologies and enhancements

Keeping a healthy diet, engaging in various forms of social cooperation, undergoing certain kinds of genetic manipulations and maintaining certain

¹I focus on Schechtman’s early theories (ie, pre-2014).



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hygienic standards are all forms of life-extending technologies.ⁱⁱ Some of them are classified as enhancements, particularly, those technologies used to improve our conditions for reasons not immediately related to treatment or medical needs.ⁱⁱⁱ However, the distinction between a treatment and an enhancement is blurred and controversial. For the sake of discussion, I regard treatments as those interventions motivated by medical needs, which in turn are defined in terms of disease, impairment/illness or as departures from some ideal of optimal functioning. Life-extending enhancements are those technologies used to extend our lifespan for non-medical reasons. Again, this definition is not watertight; in certain contexts, what can be regarded as ‘normal functioning’ may radically shift with time into an impairing condition. For our purposes, however, it is not crucial to draw a sharp distinction between treatments and enhancements because the main point is to evaluate whether significant life extensions are rational/desirable to pursue independently of whether they are understood as treatments or as enhancements. We can distinguish at least three types of lifespan extensions: (A) weak, (B) strong and (C) deep. Jayne Luke and Wayne Hall describe strong lifespan extensions as the outcomes of technologies that increase both the average and the maximum lifespan, while weak lifespan extensions derive from an incremental growth in life expectancy obtained through improvements in the treatment and prevention of disease.⁴ *Deep* lifespan extensions (my terminology) are the expected results of those technologies that purport to eliminate, in principle endlessly, the physically and/or mentally corrupting effects of the process of ageing. Correspondingly, there can be strong, weak and/or deep life-extending enhancements (or treatments). A successful deep lifespan extension does not necessarily amount to immortality or invulnerability. Luke and Hall claim that, in the near future, weak lifespan extensions are the most feasible, as it is unlikely that there will be a dramatic surge in people living longer than 130 years. In addition, they report that life-extending interventions will likely be various in nature, meaning that it is probable that significant life extensions will not be the result of only one specific type of intervention but rather will result, if at all, from the incremental effects of diverse medical and non-medical treatments or technologies. Despite the optimistic proclamations of many contemporary ‘futurists’, it seems unlikely that various alleged deep life-extending technologies (eg, mental uploading, cryonics, miraculous genetic modifications) will be available to relevant parts of the world population in the near future (say, 20 years from now).

Personal ontology and personal identity

We should distinguish between questions regarding *our* nature and questions regarding personal identity.^{5–7} An ontological investigation of our nature is currently classified as an investigation in ‘personal ontology’, a subdiscipline of ontology devoted to questions such as ‘What are we?’, ‘What ontological category do we belong to?’. However, theories of personal identity generally seek to specify (1) the criteria of personhood (frequently just *human* personhood) and (2) the conditions that a person *qua* person must satisfy to be metaphysically reidentified at different times. In this essay, I understand the narrative approach as involving both an account of what we are—that is, a certain type of entity—and an account of our persistence conditions *qua* persons, although I focus exclusively on questions related to *personal identity*. This understanding differs from the theoretical assumptions of certain supporters of the narrative

approach.^{8–9} For instance, some contemporary ‘narrativist’ philosophers claim that their theories are primarily concerned with questions regarding the biographical or characterising features of a person, not with the specification of the metaphysical conditions of identification and reidentification through time of entities. However, I do not think that these two theoretical *loci* of interest—the metaphysical and the biographical/psychological—are in contrast with one other. On the contrary, I think that a fruitful way of understanding the narrative approach is to see it as a specification of a generic psychological approach to personal identity.^{iv} More on this in the next sections.

Personal identity and the narrative approach

Generic psychological theories of personal identity claim that certain psychological relations are to be used to analyse personal identity without specifying in detail the peculiar qualitative structure of these relations.^{10–11} According to Derek Parfit’s influential account, the relation of personal identity between P and Q (where P and Q are persons that exist at different times) holds if and only if P and Q are uniquely psychologically continuous persons. In turn, psychological continuity is a relation that holds between P and Q just in case there are overlapping chains of strong psychological connectedness between these two entities. The relation of psychological connectedness is strong when at least half of the psychological connections that normally hold in the course of our daily lives hold. In turn, psychological connections are generally taken to include memory relations, relations between desires and plans to satisfy such desires, consistency (or direct evolution) of character and so on. While psychological continuity is a transitive relation, psychological connectedness is a matter of degree (and not transitive). Generic psychological theories do not usually further specify the qualitative aspects or structure that such psychological connections are supposed to have. In fact, one of the few requirements that is sometimes applied to these relations is that such psychological connections be sustained by appropriate causal chains, for example, appropriate causal chains between different temporal stages of our brains.^v The narrative approach can be understood as involving theories that include a more detailed (and qualitative) specification of the structure of the psychological relations of connectedness and continuity that are supposed to sustain the metaphysical relation of personal identity.

Contemporary supporters of the narrative approach, however, generally prefer to present their views as different in kind from the psychological approach sketched before.^{vi} Some (eg, Schechtman) have claimed that narrative identity theories are not (directly) concerned with the metaphysical reidentification question—What are the metaphysical conditions of persistence through time for person P?—but rather with the characterising question. The latter type of identity is supposed to be independent of metaphysical considerations and allegedly involves answers to questions such as ‘Who am I?’ and ‘When is a certain action properly mine?’.^{vii} In what follows, I take the narrative approach to personal identity as providing also one way of specifying ‘thicker’ conditions on the psychological relations responsible for the *metaphysical* relation of personal identity.

^{iv}This idea is explored also in ³⁸

^vPsychological continuity is also generally required not to take a branching form—a formal, non-qualitative feature.

^{vi}Recent works sympathetic to the application of the notion of narrative to issues in personal identity include ^{8 20 39–41}; contemporary critical discussions include ^{14 17 42 43};

^{vii}Narrative approaches have flourished in psychology, see ^{44 45}

ⁱⁱInteresting works on life-extending technologies include. ^{4 24–32}

ⁱⁱⁱSee ^{33–37} for introductions.

Part of the interest in elaborating the psychological approach in terms of (one version of) the narrative approach comes from the possibility of providing an account of the idea that not all psychological connections seem equally relevant in determining and/or sustaining personal identity over time. More specifically, we may think that there are specific psychological connections the loss of which would undermine our persistence through time as the same person—in a biographical and in a metaphysical sense.^{12 13} If our (eventual) intuitions about the priority of certain psychological connections are to be accounted, the problem for generic psychological theories is that, at least in their explicit formulations, they do not seem to be equipped with the conceptual tools needed to recognise the different roles played by some psychological connections in sustaining personal identity. In fact, on these generic psychological theories, the holding of the psychological continuity relation is not determined in terms of which specific psychological connections hold: so long as a sufficient number of these psychological connections hold, psychological continuity holds as well. However, an amended version of the psychological approach that includes insights from the narrative approach may have the resources to claim that the importance of certain events/mental states in our lives is of relevance to our identity through time as persons because, for example, some of these events or mental states are important parts of the story on which our personal identity depends. It may then be argued that, since an adequate theory of personal identity should provide an account of the idea that certain connections are more important than others for our identity as persons, the narrative approach is better off than generic psychological theories of personal identity in virtue of its capacity to provide such an account.

One formulation of the narrative approach along the previous lines can be summarised as follows:

(Person-constituting Narrative View of the Metaphysical Foundation of Personal Identity): for all t , P at t_1 is one and the same person as Q at t_2 iff P at t_1 and Q at t_2 are two stages or parts of the same ongoing and proper narrative. In addition, such a narrative should be produced and developed through time by a self or narrator internal to such a narrative (ie, the narrator produces a narrative about the narrator herself) and such that the qualitative content of her experiences is modified by the content of the narrative.

The main ideas behind this formulation, which is based on Schechtman's early work on narrative identity, are:

- ▶ The concept of a narrative. A narrative can be (1) a general tendency toward form finding, (2) a story-telling tendency or (3) a special quest-for-the-good tendency.¹⁴ The last two conditions are not always taken to be necessary requirements for a *proper* identity-sustaining narrative. For instance, Schechtman maintains that a proper identity-sustaining narrative may amount to having an understanding of the way in which a certain number of events in our lives hang together. Such an understanding should also in principle account for some of our relevant practical concerns. A personal narrative does not have to follow the standards dictated by professionally written autobiographies or other literary genres. In fact, a proper narrative can simply arrange a representation or description of events and/or mental states of an individual such that this arrangement can provide an explanation of the actions of this individual over time.
- ▶ The understanding of how events in our lives hang together may be the result of an automatic process and/or an evolutionary mechanism wired in our brains (as Daniel Dennett argued) but, according to Schechtman, such narrative should in principle be possible to retrieve and become conscious. In

addition, a proper identity-sustaining narrative is supposed to be told by the protagonist of the narrative: the narrator is also the main character or protagonist of the narrative at issue.^{15 16}

- ▶ Proper narratives are those that follow a reality constraint—not all of the stories the internal narrator may tell about herself can constitute an identity-sustaining narrative. For instance, delusional stories, according to Schechtman, should not count as appropriate identity-sustaining narratives because they radically violate the description of how things really are and thus may not be parts of proper explanations of the actions of the person at issue. The application of the reality constraint can be a matter of degree and can be specified so as to include the contribution of other people.^{17 18}
- ▶ The inclusion of various elements in the narrative—by referring to memories, desires, beliefs, life plans and so on—modifies the phenomenological character of the current experiences of the narrator/subject. When certain experiences are connected to our present self, the phenomenological character of our experiences is modified depending on how our current experiences are related to the rest of our identity-sustaining narrative. The main idea is that the way in which we perceive and experience even our own actions, say, writing a paper, may significantly vary in relation to how such an action is located within the context of our personal narrative. For instance, revising a paper for publication in a journal can be experienced with anxiety in case such an action is seen as part of the chapter 'Getting Tenure' of an ongoing narrative that places particular emphasis on the continuation of the academic life of the experiencing narrator. The same action of having to revise a paper would be experienced differently—for example, a mild feeling of *l'èse-majesté*—by a famous scholar whose academic life's existence is not in question.

Another version of the narrative approach, inspired by the work of Hilde Lindemann, holds that personal identity is a relation the essential features of which do not solely include narratively structured psychological connections between two individuals at different times. In fact, personal identity is essentially, but not exclusively, also constituted by a series of social practices, some of which have moral significance. One example of these relational personal/narrative identity practices is that of a family that is taking care of a severely disabled individual and that also develops a narrative on behalf of the disabled person. Using Lindemann's terminology, the disabled person is 'held in personhood'. In addition, according to this theory, it is not necessary for a person's having (or for the existence of) an identity-sustaining narrative that she, the subject and protagonist, narrate her own narrative. In fact, other relevantly connected people may be qualified to do it on his or her behalf.^{viii} Still, not any entity or narrative can have a proper identity-sustaining narrative: Lindemann further claims that certain mental states or the capacity of developing them are essential for an entity to be a proper subject and object of a relational narrative identity. On this view, so long as, for example, the disabled person is capable of expressing through her body certain aspects of her personality—which may include the expression of simple preferences—she can qualify as being the object of a proper narrative, even though such a narrative is told solely by, say, members

^{viii}An even broader relational account may not require an external *human* narrator.

of her family.^{ix} This version of the narrative approach can be summarised as follows:

(Relational Person-constituting Narrative View of the Metaphysical Foundation of Personal Identity): for all t , P at t_1 is one and the same person as Q at t_2 iff P at t_1 and Q at t_2 are two stages or parts of same ongoing and proper narrative. Such a narrative should be produced and developed through time by an internal narrator and/or by other relevant narrators properly connected to the subject of the narrative—provided that P and Q are proper subjects (eg, they are capable of expressing certain aspects of their personality and/or are embodied).

The way in which other narrators may be properly connected to the identity-sustaining narrative can be specified in more or less stringent terms. For example, in the case of a developing fetus, it can be argued—supposing that the fetus is developing normal psychological capacities—that the woman carrying it can be an appropriate external narrator.²

Life-extending technologies and personal identity

In this section, I discuss an objection proposed in ¹⁹ against the desirability and rationality of certain deep life-extending technologies. In the subsequent two sections, I outline two ways in which the narrative approach may reply to this objection. I offer an analysis of this argument primarily to show how the narrative approach, in the two versions previously formulated, can be applied to the debate on life-extending enhancements. Glannon's argument against the desirability of life-extending technologies is based on a variety of assumptions, such as (1) person essentialism (the view according to which we are essentially persons), (2) one generic version of the psychological theory of personal identity and (3) the idea that personal identity is a necessary condition for a form of future concern for our survival and thus for such a concern to be rational/desirable. Glannon sometimes seems to suggest that *only* psychological connectedness is what matters in survival, but he also claims that 'self-interested concern about the future is intimately related to the idea of persisting through time as the same person'. Other passages seem to suggest that personal identity is a necessary condition for our rational concern for living a longer life. I here assume a stronger reading according to which personal identity is a necessary condition for our concern about deep extensions to our lives.^x In what follows, I elaborate on Glannon's argument and offer a more precise argument against deep life-extending technologies.

1. A necessary condition for X's rationality/desirability to undergo those treatments prescribed by reasonably secure deep life-extending technologies at t_1 is that X will be the same person at all (or most) of the additional times obtained as a consequence of the treatments.
2. The structure of our memory has already reached the optimum balance between memory storage, the capacity to

retrieve such memories and the capacity to act on the basis of certain selected memories. The balance is necessarily such that an extension/enhancement of our capacity to remember would disrupt our capacity to act. In particular, an enhancement of our capacity to remember—which may be regarded as necessary to cover time spans as long as those prospected by deep life extensions—would hinder our capacity to act.^{xi}

3. A necessary and sufficient condition for being the same person throughout time-span T is that of being uniquely psychologically continuous through T , where this psychological continuity necessarily involves memory continuity. In turn, memory continuity is defined in terms of strong chains of appropriate memory connections. In particular, X at t_1 is memory continuous with Y at t_2 iff at least more than half of appropriate memory connections hold between X and Y .
4. Given (2), an enhancement of our capacity to remember is not compatible with an increase in our capacity to act. Therefore, given that we presumably want to maintain our capacity to act, and given the structure of our memory, it is necessarily the case that there will not be appropriate memory connections between X at the moment of having a desire and any other persons who may be appropriately and physically connected to X at a later time when this later time exceeds (significantly) the normal or increased length of our actual life-time.^{xii}
5. An appropriate relation of personal identity cannot hold between X at the moment of desiring to undergo deep life-extending treatments and Y , a person who exists at a time that exceeds what would have been X 's normal or slightly increased lifespan.
6. Given, (1, 3, 4, 5), it is not rational and/or desirable for X to undergo those treatments prescribed by reasonably secure and affordable deep life-extending technologies at t_1 , provided X 's intention to *personally* survive and that X is rational.

To a first approximation, a memory connection is appropriate in case there is an appropriate connection between a fact, the perception of such a fact and an episode of remembering of such a fact. For the sake of discussion, we may here assume that an appropriate connection is defined in terms of appropriate causal chains. Now, the above argument claims that the individual who lives for a deeply extended life-time would not be the person who started the deep life-extending treatments because of the necessary fact that she will lack at least one relevant type of psychological connection—memory connection—between her mental states at two different times that are too distant from each other. The exact distance between these two times may be left unspecified: given our focus on deep life extensions, it may be assumed to stretch for lengths of time significantly longer (say, from 150 to even 1000 years or more) than the 'normal' duration of our lives. So, since such a connection is a necessary condition for personal identity and thus for the rationality/desirability of undergoing a deep life-extending treatment, it is irrational/undesirable to undergo deep life-extending treatments. Part of the (alleged) plausibility of premise (3) may also come

^{ix}A condition not completely equivalent to this but relevantly similar is that a proper identity-sustaining narrative should be embodied. See ^{46 47} for discussion.

^xSee ¹⁹ 275: 'When we say that we want to persist as persons into the future, it is not just qualitative similarity between present and future psychological states that we have in mind, but numerical identity. The person who will exist in the future must be the very same person who exists now.' I do not have the space to properly discuss Parfit's arguments against this view (see ¹⁰). Some supporters of the narrative approach argue that Parfit's claim that personal identity is not a necessary condition for what matters in survival shows that his theory of personal identity is inadequate—given that we do think that personal identity matters in survival.

^{xi}Glannon's rationale for this claim is based on a series of data concerning the biological structure of our brains. See: ¹⁹ :279–80. I do not want to argue against this point, although I am suspicious of it. If the point is based on biology alone, premise (2) involves a biological rather than a metaphysical impossibility ('The balance is *necessarily* such that an extension/enhancement of our capacity to remember would destroy our capacity to act.').

^{xii}Again, the type of modality at issue here seems to be biological/nomological. See note 22.

from Parfit's claim that 'connectedness is more important both in theory and in practice' when it comes to determine what is rational for an entity to do at a specific time (p:206).¹⁰ Under the assumption that self-concern and personal identity (or at least psychological connectedness) are aligned, the main point seems to be that, despite the fact that psychological continuity may hold between P and Q, each existing at relatively far ends of the same timeline, the absence of direct psychological connections may provide reasons for P not to be self-concerned for Q.

The narrative approach answer #1

Although the previous argument's premises can be criticised in many different ways, I focus on (3), as it involves an explicit reference to a theory of personal identity. In particular, if we substitute the psychological theory assumed in (3) with the person-constituting narrative view, the argument no longer goes through. One of the reasons is that according to the first version of the narrative approach previously described, the relevant connections that ground personal identity are continuously retrospectively established and/or recognised by the internal narrator; therefore, in principle, so long as the relevant parts of the ongoing narrative are properly integrated into it (eg, they satisfy the reality constraint), a person can continue to exist indefinitely. In fact, according to the person-constituting narrative view at issue, what matters for personal identity is that various parts of the relevant story can be integrated into the main plot. The sort of integration at issue is sometimes characterised by narrative theorists as involving the constitution of (proper) narrative connections such that: (1) these narrative connections function as organising principles that make various events of our lives intelligible—intelligible in the sense of understandable as actions of an agent in and over time—to ourselves and others and (2) these connections shape our character, emotional reactions and future planning. Also, a variety of other attitudes towards our future (eg, our concern for personal survival) are supposed to be influenced by the way in which such narrative connections are established.

In defending the narrative approach to personal identity, Anthony Rudd claims that '[o]ur narratives grow and change as we live. [...] The struggle to unify the elements of one's personality, and to incorporate the contingencies that life throws at one into one's narrative is a continuous process' (p:67)²⁰ The fact that certain psychological elements may not be included in the narrative does not represent an (immediate) objection to the account; it is a feature of the narrative approach that theories of this type involve, in the process of narration, the *selection* and (proper) *integration* of certain elements in the identity-sustaining narrative.^{xiii} Crucially, such a selection may operate retroactively. As already explained, depending on the development of the narrative, the phenomenological aspects of the narrating self's experience are modified; certain events and actions are observed by the agent under a description or mode of presentation influenced by the way in which the events are represented in the narrative.

Having a person-constituting narrative does not imply that a person also remembers at a specific time all of the episodes that were, are or will be connected by the narrator in her narrative. In addition to being open to a selection in the narrative process, the narrative approach is compatible with the view that external means may be used to recall certain experiences and then subsequently reintegrated into the narrative. We have

^{xiii}This process of selection can be variously described as involving the identification of certain mental states as properly belonging to the person in question. See ⁴⁸

already conceded that deep life-extending extensions may be the result of a series of enhancements rather than simply one single technology; therefore, it can also be included as a rational requirement to obtaining personal deep life-extending enhancements that some external devices may store a series of episodes from which an operating narrator can choose and reconstruct a personal narrative. This idea does not contradict Glannon's point regarding the alleged optimum balance reached by our cognitive systems because it is not here claimed that all of the memories stored in external devices must be operative in the agential system. In fact, only those memories screened and selected—that is, those integrated into the evolving narrative—by the self-narrator would be involved in action and/or in the future planning of the agent in question.

In general, to the degree that it is foreseeable for X that a connected story can be devised to integrate future events at the far end of a deep life extension, it can be rational/desirable for X to undergo a deep life-extending enhancement. In other words, if X at the beginning of the deep life-extending procedure can rationally foresee that at some point in the deep life extension, any possibly relevant future experience of some future events can be integrated into X's developing narrative, then X can have a rational desire to undergo the deep life-extending treatment. The integration of future experiences can be performed in different ways in different narratives. For instance, the decision to use a series of life-extending technologies can be integrated into a narrative having as its main theme the exploration of the limits of the known universe or other similar intellectual endeavours. Certain memory filters compatible with such a narrative type can be devised and applied in the process of memory integration, especially if realised through new technologies that may operate directly on our cognitive architecture. It may be argued that according to the narrative view at issue, what is truly responsible for the continuity of the constituted person seems to be related to the implicit (or explicit) narrator, rather than to the content of the narrative itself. So long as this inner narrator (or anything that is internally responsible for the cognitive function of narrating) remains functionally the same (or relevantly similar) and/or the inner narrative module is capable of producing and appropriating experiences into her narrative (each properly related to previous ones), this version of the narrative approach would say that the same person continues to exist through time.

These considerations may bring to light one frequently unspecified aspect of many narrative theories, that is, the metaphysical grounds of the relation of narrative identity. More specifically, it is not clear whether the relation of personal identity through time should also hold in virtue of the identity of the narrator or only of the developing narrative. One way of disentangling this issue involves a further distinction between narrative theories. In particular, some may require that in addition to the continuing and evolving character of the narrative, the story itself should be told by the same evolving narrator. Other versions of the narrative approach may hold that A's personal identity through time depends only on those narrative connections explicitly drawn solely by A (and/or by A's internal narrator). One way of specifying one version of the narrative approach that does not include the requirement that A's personal identity be narrated only by one internal narrator—the narrator who is also the protagonist of the narrative—is the relational version further discussed in the next section. Some versions of the narrative approach include a different requirement, namely, that the narrator should be embodied.

Back to the evaluation of Glannon's argument, since we are given no reason to believe that the inner narrator is structurally

inadequate to operate on selected memories, all things being equal, it seems possible to extend our narrative identity also in cases of deep life extensions. In fact, we have not been given any reasons to believe that a continuous update of the ongoing narrative would be impossible for biological or structural reasons. Thus, as far as considerations of personal identity are involved, this version of the narrative approach seems to imply that deep life-extending technologies can be rational/desirable for X to pursue.^{xiv} So, adopting this theory of personal identity provides the basis for a reply to Glannon's argument.

The narrative approach answer #2

In addition to the previous considerations, also the *relational* version of the narrative approach can be specified in a way that makes it compatible with the rationality/desirability of life-extending enhancements. In particular, one of the main points of this view is that, so long as a narrator-subject of a proper narrative maintains certain relevant capacities, even other appropriately related narrators may inform the narrative of a person, in principle, even in cases in which her life has been deeply extended. Now, on this view, it is not necessary that the same narrator update the narrative of her own life for the identity-sustaining narrative to persist. This point can be further developed in a variety of different ways, particularly with regard to what counts as a relevant 'external' appropriate narrator. More specifically, it can be argued that only members of the family of a person can be considered proper external narrators or, more plausibly, only 'authorised' members of an extended circle of people socially (and/or relevantly) connected with the person whose life has been deeply extended. Other solutions include the use of digital supports or even that of computers designated by the original narrator(s) to function as supplementary narrators. Certain regulatory mechanisms may be developed such that external means of maintaining the activity of the narrative capacity can count as proper narrators. In these cases, the identity of the person at issue would not be threatened but rather sustained by such external devices.

This version of the narrative approach has the theoretical resources to reply to the argument discussed in section 2 as well: to the degree that certain internal and/or external narrators can be developed so that a proper narrative can be continued in cases of deep life extensions, the subject (and original narrator) of such a narrative can have a rational basis—with regard to considerations of personal identity—to avail herself of deep life-extending enhancements. Thus, also this version of the narrative approach has the theoretical resources to disarm Glannon's argument—again, by adopting a different theory of personal identity. Admittedly, some of the most futuristic ways in which such external narrative devices can be specified—say, programmes running in super computers capable of storing immense quantities of data—hardly offer a substantive intuitive basis on which the previous reasoning can be evaluated.^{xv} In particular, the unity and/or individuality of the subject at issue—along with the increased degree of uncertainty with regard to the boundaries of what counts as a proper external narrative device independent of the original narrator—seems to be threatened.

^{xiv}Certain narratives can be specified such that deep life-extending enhancements may not be rational/desirable, for example, religious narratives according to which death is a necessary means to obtain a desirable connection with the divine.

^{xv}Some of these scenarios are discussed in relation to theoretical and practical issues related to the so-called singularity and to mental uploading. See⁴⁹

The threat comes from the degree to which the resulting narrative can be questioned as offering the appropriate grounds for what we consider to be applications of the concept of *personal* identity. Recent debates on the appropriateness of deleting the profiles of dead people from various social networks may help focus on the matter at issue here: while it may be argued that we may have reasons to be concerned about what happens to our digital remains—to the degree that we may be motivated to actively pursue certain forms of posthumous ways of interaction between what can be stored in a computer and other persons—it is dubious whether such forms of digital 'survival' may also count as forms of *personal* survival.^{21 22} Thus, although a computer simulation may contain a certain amount of data about my life, shape them into a narrative form and simulate certain forms of interactions with people still alive, I doubt whether this would satisfy my desire to meet people from the future and/or whether this situation amounts to a case of personal survival. Similarly, it is doubtful whether identity-sustaining narratives updated by computers may count as proper. A reply to this sceptical line of reasoning can be articulated by introducing one or more requirements to the effect that the external devices should meet stricter constraints. For instance, it can be argued that a proper identity-sustaining narrative device should spin a narrative broadly in line with what the original narrator would produce were she still alive.

Perhaps at this point, it is important to emphasise again a condition Lindemann introduced into her account: although the production of a narrative may be relational—thus possibly depending on individuals other than the person who is supposed to tell her own story—such relationality is conditional on the capacity of the entity to which the narrative refers to communicate certain aspects of her personality. The idea here is that identity-sustaining narratives updated by computerised external narrators may require a certain level of interaction between the person whose identity is being maintained and the external narrator. So, a narrative about a disembodied subject may not count as a proper example of a person-constituting narrative.

CONCLUSIONS

Both proposed versions of the narrative approach—one relying on the idea that the narrator must be the same person whose life is narrated and the other, relational version, which denies such a requirement—have the theoretical resources for justifying the rationality and/or desirability of (certain forms of) deep life-extending technologies.

Our discussion can be further complicated by questioning some of the points I took for granted for the sake of argument, for example, premise (1) of my reconstruction of Glannon's reasoning. The main idea behind this premise is that the holding of the relation of personal identity is a necessary condition for the rationality/desirability of various forms of survival. The premise can be questioned by those who argue that our egocentric concerns—of which our concern for personal survival is one instance—do not track personal identity; rather, they constitute it. For instance,²³ On this view, the relation of personal identity depends on (some of) our egoistic concerns. This point is particularly important because it may provide further reasons to prefer one version of the narrative approach rather than another. For example, it is not clear how and if we can extend our future-directed self-concerns to what is produced by external narrators, even though imaginary external devices may operate on the basis of our bodily capacity to communicate certain aspects of our personality. One of the reasons for being sceptical about the extension of our self-concern to these cases is that it is not

clear how these external devices may contribute to our phenomenal sense of continuity through time: a narrative that does not make a contribution to how we experience any of our future events may not count as a proper identity-sustaining narrative. Another way of seeing the problem is by questioning whether the external devices are making a contribution to the *same* identity-sustaining narrative that was originally told by the protagonist/narrator. In particular, these external devices can be taken to be spinning a metaphysically different narrative (or, for what matters, a series of metaphysically different narratives). This (series of) narrative(s) is *different* because the contribution it makes to the phenomenal aspects of our experience is likely different from the contribution that an internal narrative (ie, a narrative produced by the narrator/protagonist) may make. One possible reply to this line of reasoning may involve the specification of further conditions on what makes an external narrative a proper identity-sustaining narrative. For instance, it could be required that external narratives ('spin-offs') should make a contribution to a subject's phenomenal sense of continuity and concerns. For reasons of space, I leave the specification of these conditions to another occasion. Yet such conclusions rest on several assumptions about the viability of the narrative approach at a more fundamental level.

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