NARRATIVITY FROM THE PERSPECTIVES OF ECONOMICS AND PHILOSOPHY: DAVIS, ROSS, MULTIPLESELVES MODELS... AND BEHAVIORAL ECONOMICS

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Narrativity from the perspectives of economics and philosophy: Davis, Ross, multiple-selves models... and behavioral economics

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Abstract
Narrativity broadly refers to the way humans construct and use stories, be them the widely known ones in a given culture or the more private ones people tell to each other or to themselves. The main goal of this paper is to clarify the extent to which the notion of narrativity can play a role in economic analysis with respect to the representation of economic agents in models of individual behaviors. To do so, we scrutinize a set of contributions from a twofold perspective. From the perspective of economics, we seek to clarify the issues regarding which we, as economists, should be interest in narrativity. From the perspective of philosophy, we, as economic methodologists or philosopher of economics, seek to clarify the conceptual issues inherent to the notion of narrativity that are not trivial or can be of some use for economic analysis. To some extent, this twofold perspective on narrativity and economics has already been taken by John Davis (2009; 2011) and Don Ross (2005; 2014), who use the notion of narrativity to account for individuals’ sense of a unified self and identity, notably with respect to the recent surge of multiple-selves models in economics. We propose to further Davis’ and Ross’ efforts in at least three respects: firstly, through a comparative study of their contributions focused on narrativity from the perspective of economics; secondly, by discussing the connections between their contributions and the set of existing contributions related to narrativity in behavioral economics that none of them discuss; and, thirdly, by taking, at least for the sake of argument, a philosophically critical perspective on narrativity.

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Introduction

To remark that there has been a ‘narrative turn’ in various areas of the social sciences and philosophy is now common place; from neuroscience to anthropology, and from ethics to the philosophy of mind, the notion of narrativity is been used intensely (see Herman, Jahn and Ryan 2005). Narrativity broadly refers to the way humans construct and use stories, be them the widely known ones in a given culture or the more private ones people tell to each other or to them selves. Though economics has not been part of this narrative turn, narrativity has recently been discussed with respect to economics in at least two ways. One way is about economists’ uses of narratives to construct their models and/or for argumentative purposes. In this paper, we shall not be concerned with these issues¹. Rather, we shall focus on another way by which narrativity has been discussed with respect to economics, namely the narrativity of economic agents.

The main goal of this paper is to clarify the extent to which the notion of narrativity can play a role in economic analysis with respect to the representation of economic agents in models of individual behaviors. To do so, we scrutinize a set of contributions from a twofold perspective. From the perspective of economics, we seek to clarify the issues regarding which we, as economists, should be interest in narrativity. From the perspective of philosophy, we, as economic methodologists or philosopher of economics, seek to clarify the conceptual issues inherent to the notion of narrativity that are not trivial or can be of some use for economic analysis. To some extent, this twofold perspective on narrativity and economics has already been taken by John Davis (2009; 2011) and Don Ross (2005; 2014). Following an important trend within the narrative turn where narrativity accounts for individuals’ sense of a unified self and identity, Davis and Ross have separately provided such an account for economics and its recent surge of multiple-selves models. However, on the one hand, the role of narrativity from the perspective of economics is only indirectly addressed in Davis’ and Ross’ work, and, on the other hand, none of them discuss existing contributions on narrativity in behavioral economics. We propose to further Davis’ and Ross’ efforts in at least three respects: firstly, through a comparative study of their contributions focused on narrativity from the perspective of economics; secondly, by discussing the connections between their contributions and the set of existing contributions related to narrativity in behavioral economics that none of them discuss; and, thirdly, by taking, at least for the sake of argument, a philosophically critical perspective on narrativity.

The paper is organized in two sections. The first one focuses on Ross’ and Davis’ respective projects. The second one focuses on contributions from behavioral economics that are related to narrativity. The philosophically critical perspective on narrativity is taken in both sections, as their respective final subsections.

1. Davis, Ross, and multiple-selves models

What use can economists make of the notion of narrativity in the construction of their models of individual behaviors? The goal of this section is to try to answer that question by scrutinizing the work in economic methodology and philosophy of economics by Davis and Ross, both of whom make non-trivial uses of the notion of narrativity (1.1). We then illustrate one possible use of narrativity that emerges from this comparison, namely as a unifying notion of consistency, which we propose to discuss with respect to current issues of theoretical unification between standard and behavioral economics (1.2). We then take a philosophically critical perspective on that possible use in order to outline its limits (1.3).

1.1 A comparative study of the role of narrativity in Davis’ and Ross’ projects

The works of Davis and Ross on the representation of individuals by economists can be presented through the following oppositions that meet on the notion of narrativity. Davis (2003; 2011) argues that standard and behavioral economists hold a valuable commitment to interpreting human individuals as the unit of agency, but they are wrong both in their interpretations of what it takes to be human and in how these interpretations are implemented through theories of choice, preference and utility. On the other hand, Ross (2005; 2014) argues that the mathematical structures of these theories are a valuable theoretical representation of units of agency, but economists are wrong both in their willingness to interpret these structures as being about the behaviors of human individuals (because, roughly, the units of agency generating economic data are temporally located conjunctions of neural and social activities), and in the content of these interpretations (i.e., if it turned out that a human interpretation should be given to these theoretical structures). Hence, Davis and Ross agree on at least one point: that economists’ interpretation of what it takes to be human is mistaken.

For Ross, though the exact distinguishing features of humans as a species matter for the scientific practices of some behavioral and cognitive scientists (see esp. Ross 2007), it does not for economists, with the exception of some normative -- especially political -- purposes (see Ross 2014, pp.307-8).
For Davis, it is not possible to fully segregate the scientific practices of economists from their potential normative implications (see esp. Davis 2016); and this makes the representation of individual humans in economists’ models a crucial issue (see Davis 2003; 2011, esp. pp.16-17 in response to Ross). Despite this nontrivial divergence, the accounts of what it takes to be human from both authors share a commitment to the centrality of narrativity: it is the way we tell stories about ourselves, to ourselves and to other people, and also the way we construct stories with other people, that make us humans.

More precisely, on both Ross’ and Davis’ accounts, what makes human beings interesting from the perspective of behavioral, cognitive and/or social scientific perspectives is the narrative foundations of our complex identity or sense of self. Stated in the first-person perspective, the question is: How is it that, despite all my internal conflicts and contradictions, both across time and in my relations to other people, I feel or believe that I am one and the same human being, as do these other people with whom I interact? On both Ross’ and Davis’ accounts, these feelings and beliefs are made possible through the narrative way by which we keep track of our choices, commitments, conflicts, contradictions and the like, as we try to rationalize them both for ourselves and for other people. In other words, it is because these constituents of individual behaviors can be arranged to make one story that I feel or believe that I am one individual human being. In a way, this account is representative of the contemporary mainstream view on issues of personal identity and selfhood both in ethics and the philosophy of mind. It can be argued that, despite both Davis and Ross drawing on a number of philosophers and psychologists to ground their narrative account of identity2, these two authors are much more explicit and focused on (1) why their accounts may matter for economics (esp. Davis) or the social sciences (esp. Ross), than on (2) how exactly is ‘a story’ or ‘a narrative’ to be characterized. Let’s discuss these two points in turn.

Davis’ (2009; 2011, part.3) narrative account of identity is presented as a framework to conduct behavioral analysis of economic choices. His criticisms of existing models of individual behaviors are guided by two identity criteria: Are these models able to explain how economic agents maintain a unitary account of themselves (1) over time and (2) regarding the various other people with whom they have social interactions? Stated in its most general form, his framework seeks to capture how, in economic life, “individuals change over their lifetimes yet still make choices that presuppose they are the same individuals”, such as individuals’ choices regarding “education, pensions, health care, insurance, etc. are designed to protect them against change in their lives” (2009, p.72). Davis argues

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2 For the sake of clarity and brevity, we shall not engage in conceptual genealogy in this paper. Let us just remark that both draw non-trivially on Daniel Dennett’s work on intentional-stance functionalism and Andy Clark’s work on distributed cognition; and, to a lesser extent, on Jerôme Bruner’s work in psychology.
that, taken as a whole, economists’ models have a hard time explaining both that individuals change preferences over life and that they would like to avoid (at least ‘some’) dramatic changes of preferences over life. In short, according to him, the framework of choice, preference and utility is ill-fitted to capture the behavioral patterns and welfare implications underlying this tension. As an alternative that does capture these patterns and welfare implications, Davis proposes a general co-evolutive account of economic systems whereby individuals’ characteristics (preferences, beliefs etc.) are endogenous to economic processes, without denying that individuals may be self-conscious of this, and that very self-consciousness may trigger some changes in individual characteristics impacting economic processes. Narrativity plays a crucial role in this relation of reflexivity: on the one hand, the institutional landscape into which individuals evolves produces a set of narratives that influence economic agents in different directions, and, on the other hand, economic agents have a basic capability of creating and maintaining “self-narratives” that, roughly, articulate the narratives to which they are exposed in a consistent fashion. Before delving a bit further into what exactly are these self-narratives, let’s turn to Ross’ account of why narratives may be important for economics and why they are surely important for other behavioral, cognitive and/or social sciences.

Ross’ (2005) account of economic systems is in terms of a general equilibrium problem that is too complex to be tractable as a whole but can be analyzed as a set of coordination games through dynamic game theory. In this dynamics, economic agents play simultaneously a large number of repeated coordination games with different economic agents. Because economic agents are not human individuals, the games can be seen as played by selves, both (1) against future selves of a given human individual and (2) against selves of other human individuals (note the parallel with Davis’ identity criteria). Because of such a great degree of interdependencies, lots of games have multiple equilibria and coordination fails, exhibiting preference intertemporal preference reversals of a given human individuals or Pareto-suboptimal outcomes between different individuals. However, in the long run, these failures tend to decrease over time, i.e., both human individuals and the economic system become more stable. According to Ross, narrativity plays a key role in this stabilization process at the level of human individuals by rationalizing choices through the consistency underlying the narratives. Hence, the predictability of these choices is increased from the perspective of both the human whose selves are making these choices and the other humans with whom he or she interacts. On Ross’ account, it is not so much that the stories told by, or to, human individuals determine directly the choices made by their selves; the influence is more indirect: these stories produce consistency by restricting the choice sets faced by selves. To illustrate, consider the domain of

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3 Davis sets his account as a development Amartya Sen’s capability framework. See Davis (2007) on how he fleshes out the notion of (self-)reflexivity in Sen’s critical work on rational choice theory.
education with the following example. A student hesitates to enroll for a degree in economics or in philosophy. Procrastinating in front of this crucial choice, she misses the registration deadline for philosophy, but it is still possible to enroll through a specific administrative process. She ends up choosing economics. At that moment, she starts constructing a narrative about herself as an economist which not only rationalize this choice, but also will restrict the future choice sets she will face, obviously in terms of education and careers, but potentially also in terms of lifestyle activities, such as which type of newspapers she will read etc. According to Ross, the influence of this narrative is reinforced as she narrates it to other people (e.g., to her parents) and as other people narrates it to her (e.g., the dean of the economic department on the introductory day). Ross stresses that the existence of a public language, in which the narrative is expressed, is crucial in this reinforcement process. Regarding the issue of predictability, economic agents’ forecast of the future is influenced by self-narratives, notably through the retrospective glance performed during the formation of expectations.

How exactly do Ross and Davis characterize “narratives” as used in the previous two paragraphs? It can be argued that both authors’ characterizations are not very precise, at least by contrast with their discussions of the functions of narratives in economic choices, and also by contrast with existing controversies in contemporary philosophy over that term. For Ross, this lack of characterization is explicit:

“I will leave the concept of a narrative constraint as an unanalyzed black box here [...]. In any case, let us for now just understand a narrative constraint in the vague operational sense of whatever it is that leads a given group of people to judge some behavioral sequences as ones in which earlier behavioral patterns explain others, and other sequences as ones in which explanation must draw on synchronic factors exogenous to behavioral patterns alone.[...] It may be helpful in explicating this idea to note that a given culture’s sense of narrative coherence will tend to stand in a mutually implicative relationship with its theory of insanity.” (2005, p.286)

Davis (2011, part.3) works out a little bit further his characterization of what counts as a “narrative” by means of a contrast between what he calls “conventional narratives” and “self-narratives”⁴. Both are discursive accounts of events made through the uses of ordinary language, but they have different structures and are used for different purposes. Conventional narratives, such as the ones found in books, movies or in some myths of a given culture, are more ‘closed’ than self-narratives, i.e., there is more a beginning, a middle and an end or “some measure of completeness” (p.209) in the former than

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⁴ Ross (2005, chap. 8, 2014, p.248) also uses the latter expression.
in the latter. Furthermore, by contrast with conventional narratives, self-narratives do not achieve some dramatic effects (p.210). In this respect self-narratives are unlike autobiographies or life stories, but they are still narratives as “discursive accounts that impose an order of some kind on a variety of different sorts of phenomena” (ibid). The main specificity of self-narratives is that this order or consistency is dynamic (p.193), at any point in time the self-narrative balances “histories” of the past with “strategies and plans” for the future in a way that maintain a unity of the individual about which the narrative is about (p.210).

With respect to existing controversies in philosophy over the notion of narrativity as consistency\(^5\), both Davis’ and Ross’ openness in their interpretations can be seen as an asset rather than a drawback, as it avoids a number of issues on which it would have been needed to take a stance. In the next subsection, we illustrate more concretely the contemporary issues regarding which the notion of narrativity as discussed by Davis and Ross could be of some use: the issue of theoretical unification raised in the debates between standard and behavioral economics around multiple-selves models.

### 1.2 The relevance of narrativity for multiple-selves models

The purpose of this section is to show how narrativity could be useful for economists regarding the issues raised by multiple-selves models. We first state two such issues and their connections: the issue of theoretical unification and the positive/normative issue within models of individual behaviors. In standard economics, the notion of rationality provides a unifying framework for various models of individual behaviors. Two interpretations of rationality (that are not necessarily mutually exclusive) are often distinguished (see Sen 1987): rationality as the pursuit of self-interest -- prominently used in applied microeconomics -- and rationality as consistency of choices -- prominently used in theoretical hence formal microeconomics. Though models of individual behaviors in economics are rightly seen as ‘the toolbox’ used by economists to model social phenomena in the scientific practice of positive economics, these models have also a normative dimension by virtue of the claims of rationality attached to their interpretations. We can illustrate this for the version of rationality as consistency that is at the center of the issues raised by multiple-selves models, namely dynamic consistency, by continuing the example from the previous subsection.

So, throughout her first year of economics, our student happens to enjoy the courses and has good grades. Furthermore, she has a couple of friends who are going through the first year of philosophy, so

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that she has full information about what’s going on there, and still do not regret her choice. By the end of the year, she undertakes the plan of becoming one day a theoretical economist (i.e., her self-narrative has grown). According to her, the first thing to do in carrying out this plan is to register again in economics for the second year. Some days before doing that, she happens to accompany her friends registering for philosophy. All of them put some kind of pressure on her to register in philosophy, and she’s starting to feel the urge to do it. Here, rationality as dynamic consistency requires that she resists this urge and sticks to her plan; if she does not do that, she violates dynamic consistency. All standard models of individual behaviors ensures dynamic consistency. These models have a positive dimension in the sense that they describe, explain and/or predict the behaviors of rational individuals, e.g., ‘our student will not register in philosophy because she is rational and doing that would go against her plan’. But the very same models also have a normative dimension, in the sense they evaluate, recommend and/or prescribe the rationality of individual behaviors, e.g., ‘if she undertakes the plan of becoming a theoretical economist, then she ought not to register in philosophy, or else she is irrational’. Now, it turns out she ends up not resisting the urge and chooses to register in philosophy. What does standard models have to say about her behaviors? The answer is, roughly, not much without adding ad hoc hypotheses such that she in fact decided to change her plans or received new information and the like. Behavioral economists’ models of multiple-selves, on the other hand, are in a sense constructed to deal with these kinds of situation. For instance, O’Donoghue and Rabin (1999a; b; 2001) can model our student as collections of selves through dynamic game theory. Put informally, the violation of dynamic consistency would be modeled by postulating that the self who undertakes the plan to become a theoretical economist is not the same as the ones who carry the subsequent actions, including the action to register or not register in philosophy under the pressure of her friends. As part of the more general methodological strategy of behavioral economics, violations of dynamic consistencies are taken to be important empirical regularities that needs to be modeled from a positive perspective, and this is what multiple-selves models do by contrast with standard models; however, from a normative perspective, these violations are considered as irrational, in line with standard models, which are taken by behavioral economists as a normative benchmark to characterize rationality. The issue of theoretical unification comes from the great variety of models, multiple-selves and others, proposed by behavioral economics to capture, from a positive perspective, various empirical regularities that contradict standard models. Hence there is an increasing variety of models, which has been criticized by some standard economists for breaking the initial unity underlying economic models.

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6 This, we take as the standard statement of the positive/normative issue within models of individual behaviors; see, e.g., Arrow (1996), Sen (2002, chap.1), Hausman and McPherson (2006, part. I).


There is however a recent trend whereby some multiple-selves models try to reconcile behavioral and standard economics by accounting for a wide range of empirical regularities within one model which allows for both positive and normative analysis.\(^9\) For instance, Fudenberg and Levine (2006) proposes what they call a dual-self model, where, by contrast with most multiple-selves models, each action is determined by the interactions between two types of selves: one long-run self who plays the whole game (e.g., trying to maximize a lifetime plan) and a series of short-run selves, each of which play only once (e.g., trying to maximize instantaneous pleasure). Roughly, theoretical unification is achieved in their models by turning what is usually a constant in standard models, especially the rate of discounting and the level of risk aversion, into a variable, the value of which depends on the interactions between the two types of selves. These interactions are formalized as a utility calculus performed by the long-run self, who gets all its utility from the utility derived by the short-run selves. The crucial part of the calculus is the cost of self-control that the long-run self needs to exert in order to change a short-run self’s initial optimum (for the sake of future utilities about which the latter does not care). To illustrate in the above example, when having to decide whether or not to register for philosophy, the long-run self computes how much utility will be lost by letting the short-run self maximizing the urge to register in philosophy now and how much utility will be lost in self-control by changing the short-run’s current optimal. On their account, if our student finally registered in philosophy, it is because the urge was so strong as to imply an incredibly high amount of utility to be paid in self-control to avoid doing it.

In various applications, Fudenberg and Levine show how their models can capture the behavioral regularities that are captured by several models in behavioral economics. A great part of the unificatory power of Fudenberg and Levine’s models comes from their modeling of convex (i.e., nonlinear) costs of self-control, which can be intuitively stated as follows. Roughly, the issue of linear versus convex self-control cost function is about whether the marginal cost of self-control is proportional (linear) or more than proportional (convex) to the forgone marginal utility it entails. Put differently, self-control costs in utility are convex when, to avoid a given amount of consumption, they are superior to the marginal utility that would have been derived from that amount. Fudenberg and Levine (2006, section VI) show that, with linear self-control costs, the preferences induced by their dual model are consistent with standard axioms, including a generalization of dynamic consistency proposed by Faruk Gul and Wolfgang Pesendorfer (2001).\(^{10}\) This is not the case anymore

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\(^9\) Bénabou and Tirole’s (2011), Akerlof and Kranton’s (2010), Fudenberg and Levine’s (2012), and Bacharach, Gold and Sugden’s (2006).

\(^{10}\) The generalization hinges on their (static) axiom of “set betweenness”, in which preferences are defined over choice set instead of objects of choice: \(\{x\} \preceq \{y\} \Rightarrow \{x\} \preceq \{x\} \cup \{y\} \preceq \{y\}\).
when self-control costs are not linear, as their dual model then violates this general version of dynamic consistency, with some of the most basic axioms that are usually taken as defining rationality in standard economics: contraction consistency on choice functions\textsuperscript{11} and the independence axiom on preference relations\textsuperscript{12}. However, Fudenberg and Levine do not see these violations as necessarily entailing irrationality. They rather argue that if convex self-control is an internal constraint against which the decision maker cannot do anything, then “insights from psychology and neuroscience” becomes useful to characterize what counts as rational (see Fudenberg and Levine 2006, p.1469). On this point, their work have motivated further contributions in the axiomatic approach to self-control problems (surveyed by Lipman and Pesendorfer 2013, see esp. sect.7), which have themselves motivated further extensions of Fudenberg and Levine’s dual model (2012). In short, it can be argued that, in a sense, the very notion of consistency that underlies economists’ value judgments of rationality and irrationality is slowly changing, or at least generalizing.

Both rationality as consistency as discussed by economists and narrativity as discussed by philosophers (including Ross and Davis) derive their normativity partly from being notions of consistency. Furthermore, though, as we have just suggested, rationality as consistency in economics may not be fixed once and for all but evolving, it remains finer than narrativity as consistency in philosophy in the sense of inclusion: every behavior deemed consistent in terms of economic rationality is consistent in terms of at least one narrative but not every behavior that is consistent in terms of at least one narrative is consistent in terms of economic rationality. To illustrate, consider our student again: after enjoying philosophy for a year so much as to plan to become a philosopher, she then register back to economics one year later under the same kind of urge and pressure of other friends (or of her parents). Because choices about education plays a non-trivial role in the constitution of her identity, it is easily captured in a self-narrative by virtue of the nontrivial role played by education in the constitution of her identity. For instance, she can rationalize her revision through the self-narrative of a tortured intellectual in-between two ideals. However, because this revision occurs in two choice situations with identical consequences, it is hard to rationalize as consistency of choices, even with Fudenberg and Levine’s model (i.e., without including ad hoc hypothesis of self-deception).

Therefore, the following tension naturally arises. On the one hand, consistency as narrativity offers a potential for multiple- and dual-selves model to be used to rationalize behavior in the strong sense of

\textsuperscript{11} With $C(.)$ denoting a choice function, contraction consistency can be expressed formally as:

$\{x\} \equiv C(\{x,y,z\}) \Rightarrow \{x\} \equiv C(\{x,y\})$.

\textsuperscript{12} With $A$, $B$ and $X$ denoting lotteries and $p$ a number between 0 and 1, the independence axiom can be expressed formally as: $A \equiv B \Rightarrow pA + (1-p)X \equiv pB + (1-p)X$. 

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arguing for their rationality (as opposed to a weaker sense of just achieving their formalization). In this respect, consistency as narrativity brings both the social and the psychological dimensions that seem indispensable to achieve the broad theoretical unification mentioned above, the lack of which in economics is often the target of its critics. On the other hand, the notions of rationality and irrationality implicitly used in the behavioral versus standard economics debates are likely to become vacuous if any given behavior can be rationalized in the sense of being consistent with a story. In this respect, consistency as narrativity can have undesirable normative implications, both at the individual level (an economist could always find one story to rationalize the behavior of an economic agent who explicitly describes his behavior as inconsistent) and at the social level (an agent or an economist could always find one story to argue that an allegedly Pareto-optimal or -improving arrangement is in fact not so).

There is a further issue with narrativity as consistency that strikes more at the heart of models of individual behaviors in economics: is narrativity a universal characteristic, i.e., of all economic agents? We turn to this issue in the next subsection.

### 1.3 The implications of being “Against Narrativity” for economics

In this subsection, our goal is to discuss one prominent critic of the narrative turn in philosophy to show how the normativity of narrativity as consistency is not uncontroversial, and point to some limits for using it. The prominent critic is Galen Strawson with his manifesto “Against Narrativity” (2004). Strawson characterizes two theses held by most authors within the narrative turn. On the one hand, the psychological Narrativity thesis is “a straightforwardly empirical, descriptive thesis about the way ordinary human beings actually experience their lives” as narratives (Strawson 2004, p.428). On the other hand, the ethical Narrativity thesis normatively asserts “that experiencing or conceiving one’s life as a narrative is a good thing; a richly Narrative outlook is essential to a well-lived life, to true or full personhood” (ibid). Before we explain how he criticizes these two thesis, let’s see why his criticisms could matter in economics.

It can be argued that there is a shared acceptance of both the psychological and ethical narrativity theses in economics, explicitly so by Davis and Ross, and in a more implicit and sometimes more confused manner by standard and behavioral economists. In the latter, the acceptance of both theses
can be found indirectly in the consensus over the primacy of long-run perspectives over shorter ones both in terms of rationality and (one could argue ‘by implications’) in terms of normative welfare analysis (see e.g., O’Donoghue and Rabin 2003; 2006; Loewenstein et al. 2015; Thaler and Sunstein 2008). Being consistent means not revising one’s plans and that individual’s deep preferences are to act according to long-run interests. This is visible in the terminology used in multiple-selves models, where the correct anticipation of one’s regret is qualified as being ‘sophisticated’ while incorrect anticipations are qualified as being ‘naïve’ or ‘myopic’; and with the uses of traditional opposite pairs, respectively, such as ‘deliberation’ versus ‘affects’, or simply ‘rational self’ versus ‘irrational self’ (see Metha 2013). This primacy was already in place at the beginning of the literature on multiple-selves models in the 1980s in economics, and Tyler Cowen (1994) criticized it through some arguments that strongly echoes Strawson’s criticisms. Roughly, Cowen proposed a set of arguments to remove the asymmetry between the two types of selves (e.g., long-run and short-run) on the normative and positive dimensions. On the positive dimension, he argues against the implicit conceptualization of the ‘impulsive’ self as “largely incapable of strategic behavior” (for instance, Cowen points to the precommitment to register as a soldier to go fight a war that are taken impulsively after hearing an advertisement for it). On the normative dimension, he argues that the long-run’s welfare can be determined by social considerations (e.g., contributing to the welfare of society by painfully writing a book), that trumps the individual’s own welfare (Cowen here takes the example of Kant). Cowen also point that lifetime welfare can also be decreased by the frustrations and mental health problems that may arise as consequences of the plans considered by the long-run self. Finally, short run-selves can contribute to increasing our lifetime welfare, notably from the creativity (or innovation) and spontaneity that are valued by the long-run self but cannot occur as consequences of the plans it considers.

The relevance of Cowen criticism for the purpose of this section is that it criticizes the primacy of long-run dynamic consistency implicit in narrativity as consistency. This is in line with Strawson’s arguments against the universal truth of both the psychological and ethical narrativity theses: not everybody experience his or her life as a narrative and doing so is not the only path to the good life. His overall argument relies on the construction of a continuum with two types of personality at the extrema. Diachronic individuals indeed live their lives as a narrative and/or think they should do so. By contrast, episodic individuals do not live their lives as a narrative and/or do not think they should do so. In short, the defense of both the existence and ethics of episodic individuals is Strawson’s main attack against the narrative turn (see also Strawson 2007), and the ethics of Strawson’s episodics is

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13 It is more than mere coincidence if in 2009 Cowen criticized the normativity of the notion of narrativity as discussed in behavioral economics (see the next section) in a Ted Talk: http://www.ted.com/talks/tyler_cowen_be_suspicious_of_stories (last consulted 15/05/16).
well in line with Cowen’s arguments. Broadly put, Strawson’s position is that for some people like him, there is no psychological connections between one’s past and one’s future, though there is obvious moral, emotional and biological ones. That is, he does not experience his current self as the same entity that wrote previous books or will write future books, though he, as a human person, assumes moral and legal responsibility for these books. His sense of identity is not constrained by the existence of a coherent story that arrange past and future actions in a coherent fashion. The main point that, together with Cowen’s arguments, should at least be considered for the purpose of this section is the following. If Strawson and Cowen are right (at least on some points), then, the imposition of narrative and/or dynamic consistencies as a priori normative criteria of rational action, is, in economist language, not Pareto optimal: episodics will suffer from welfare losses for the benefits of the diachronics.

It turns out that the few existing work related to narrativity in behavioral economics also point to problematic, albeit different, issues underlying narrativity.

2. Narrativity from the vantage point of behavioral economics

Though not an extensive topic of research among behavioral economists, a few of their contributions are explicitly about narrativity. We organize this section in three subsections, on the fallacies in decision making that may be caused by narrativity (2.1), on the fallacies in the normative analysis of decision making that may be caused by the neglect of agent’s narrativity by economists (2.2), which we then both put into philosophical perspective to see what economic methodologists and philosophers of economists can make of behavioral economists’ work on narrativity (2.3).

2.1 Narrative fallacies

One way by which narrativity has come to be discussed around behavioral economics is through the mutual influence between Nassim Taleb’s (2007, chap.6) discussion of what he calls “The Narrative Fallacy” and Daniel Kahneman’s (2011) popular retrospective account of his work in terms of System 1/System 2. Roughly, Taleb (2007, chap.6) argues that information about random events is usually too rich (in his terms, it has a great ‘dimensionality’) for been processed as such by the human mind. Narrativity often plays the role of an unconscious theorizing activity, simplifying observations by seeing causality where there is none and fallaciously inferring the existence of meaningful patterns
where there is only brute randomness. As such, narrativity is, according to Taleb, responsible for most of the cognitive biases documented by psychologists, including Kahneman and Tversky in their work which strongly inspired the making of behavioral economics.

Kahneman (2011, pp.199-200; p.218-221) agrees with Taleb’s account of narrativity. Furthermore, Kahneman (2011, chap.36) proposes further normative criticisms of narrativity that are connected both to behavioral economics and to the notion of narrativity as consistency that was discussed in the previous section. He argues that people think narratively and models of individual behaviors along with psychological experiments should be developed from a positive perspective, but that this is not necessarily a good thing from a normative perspective. Roughly, his argument is that attaching normative importance to living life as a story produces biases in the evaluation of welfare. He cites various experiments from psychology and thought experiments to make his case. Among the experiments from psychology, there is one (Diener et al. 2001) in which subjects are presented with stories depicting the life of a woman, where the only four differences in the stories are that: ‘she lived a very happy life for 30 years’ versus ‘she lived a very happy life for 60 years’ versus ‘she lived a very happy life for 30 years and then 5 years slightly less happy’ versus ‘she lived a very happy life for 60 years and then 5 years slightly less happy’. The striking results were not only that subjects tended to be indifferent to the doubling (from 30 to 60 years) and near doubling (from 35 to 65 years) in duration of the woman’s life in their evaluation of its whole desirability and happiness, but also that they tended to evaluate the addition of 5 slightly less happy years as decreasing the desirability and happiness of her life (see Kahneman 2011, pp.387-388). The full significance of these results can only be understood against the background of Kahneman and other behavioral economists’ work on “experienced utility” (Kahneman 1994; Kahneman et al. 1997; Kahneman and Sugden 2005; Kahneman and Thaler 2006). Roughly, by contrast with the ‘decision utility’ of the evaluation of an object of choice at the moment of choice, ‘experienced utility’ is about the hedonic sensation of the consequence of a choice. Kahneman and his co-authors consider the maximization of experienced utility as a normative criterion of rationality (and proposes theoretical and empirical contributions to measure it). Hence economic agents should maximize the sum or integral of experienced utility, which they often fail to do because of various cognitive biases; and the failure to maximize the woman’s experienced utility is due to economic agents’ tendency to see life as a story, instead of moments pleasures and pains that are not necessarily connected meaningfully. Kahneman nevertheless recognizes that there are some pains, such as climbing a mountain or trekking in the jungle, that are worth experiencing because their meaningfulness afterwards, when a goal is achieved and can be narrated, brings pleasure.
That various fallacies may be caused by narrativity has been highlighted by Akerlof in several publications with various co-authors. With Robert Shiller, he has highlighted the quite obvious manipulations we may be prone to, from the storytelling skills of politicians, financial experts and, even more obviously, marketing professionals, because of our tendency to think narratively and to believe in good stories (see Akerlof and Schiller 2009, esp. chap. 5; 2015, esp. chap. 3). More recently, Akerlof and Dennis Snower (2016) have given a more systematic account of seven ways (italicized in the foregoing) by which narratives impact decision making and about which (at least ‘behavioral’) economics should care about. Akerlof and Snower follow Kahneman and Taleb on some fallacious implications of narrativity, emphasizing a little more on the social dimension of these fallacies, namely that the narratives are told by narrators who do not necessarily have good (or at least ‘well informed’) intentions. This is especially the case when a narrator wants to focus your attention only on the good consequences of some individual or collective actions, and leaves the bad ones untold. They also emphasize some of the bad consequences that may happen in terms of power relationships and the establishment social norms due to some narratives. Indeed, Akerlof and Snower (2016) structure their arguments around a narrative of the Soviet Union’s fall in the 20th century, which they stop at some points to illustrate explicitly the ways by which some narratives told at the time impacted decision makers, often (but not always) leading them to entertain fallacious beliefs and to make welfare-decreasing choices. Hence, a specific feature of their account is their emphasis on the relation between individuals own narratives and the narratives produced by social institutions (a point indeed emphasized at length by both Davis and Ross, who are however not referenced by Akerlof and Snower). The key point here is related with Akerlof and Shiller’s emphasis that “most advertising can be viewed as grafting stories of its own onto the mental narratives in our minds” (2015, p. 46). Consequently the fallacies due to the narrativity of individuals should also be considered from the vantage point of the more collective narratives in which they are embedded. In a sense, Akerlof and Snower work out the social consequences of Taleb’s and Kahneman’s characterization of the cognitive fallacies associated with narrativity. However, by contrast with them, Akerlof and Snower also emphasize a number of virtues of narrativity in terms of decision making (which, it shall be noted, are more ‘not emphasized’ than ‘denied’ by Kahneman and Taleb).

2.2 Narrative virtues

Akerlof and Snower’s contribution can be understood as a grand manifesto about the behavioral impacts of narratives, and their implications of economic analysis. Hence they go a bit further the

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14 Akerlof and Schiller (2015, pp.175-6) credit the influence of Rachel Kranton (notably in her earlier work with Akerlof on the economics of identity) for their developments on narrativity.
topic of identity and a sense of self on which Davis and Ross focus, to investigate the implications of narrativity as a general type of cognition. Akerlof and Snower are also not explicit on the normative implications of their analysis\(^\text{15}\), though we saw in the previous section that some aspects of narrativity they emphasize could have clear welfare-decreasing consequences; here, we shall see how it can have welfare-increasing ones. That is, narrativity is a double-edge sword for economic agents’ welfare.

Hence among the virtues of narrativity we find the ways by which narratives help decision makers focus their attention in order to find what are the important aspects of a decision problem, or, more generally, it helps them to understand the environment in order to process the relevant information in their interactions with other people. Notice that these virtues of narrativity appears when one takes into account the social dimension of economic behaviors. In the same spirit, narratives are essential in the achievement of social cooperation and coordination through power relationships and social norms by the way they help forming and sustaining social identities (this is the point that is emphasized at length by both Davis and Ross, who, recall, are not referenced by Akerlof and Snower). Finally, the last two aspects through which narratives are likely be welfare-enhancing are by increasing the predictability of [social] events for which narrativity looms large (by contrast with the brute randomness generating natural events), by triggering a motivation that was lacking in the achievement of a goal planned (hence it can sustain dynamic consistency). From a larger perspective, the various point identified by Akerlof and Snower on the function of narrative is that they give schemes of meaning on which individuals relies for decision making. That is, narratives are considered for their role in the process of decision making.

Finally, we turn to one behavioral economist, George Loewenstein, who has discussed the importance of narrativity in decision making with various co-authors (Loewenstein 1999; Karlsson et al. 2004; Loewenstein and Ubel 2008; Chater and Loewenstein 2016). These discussions are usually embedded in the broader themes of the economic implications of the meaning economic agents attached to the world through their sense-making activities. We shall not discuss these themes to focus on what Loewenstein and his co-authors have to say on narrativity. Quite generally, they usually review a set of evidence from psychology to argue that people derive utility from imposing order on their chaotic experiences by narrating them in a coherent story (see Karlsson et al. 2004, pp.67-70; Loewenstein and Ubel 2008, p.1803; Chater and Loewenstein 2016, pp.151-152). More precisely, we shall focus on Loewenstein and Ubel’s (2008, p.1803) short discussion of narrativity, as it underlies a slight

\(^{15}\) Akerlof and Snower show that it has great impacts on individual decision making, it is only in their illustrations of how narrativity matters that good or bad consequences for economic agents are pointed out.
normative tension within behavioral economics. They argue that the utility derived from narrativity poses a “significant challenge” to Kahneman’s normative uses of experienced utility. As they put it, “a good life story typically involves crises and setbacks that are, hopefully, overcome” (ibid).

That not only goes obviously against economists’ notion of dynamic consistency, it also goes against Kahneman’s hedonistic view whereby one should maximize the sum or integral of instantaneous pleasures over time. However, a good drama may imply self-destructive choices that reduce, for some time, the experience of pleasure in one’s life. Loewenstein and Ubel agree that it may not always be “sensible to do so” (ibid), but the value judgments needed to make such claims are usually substantial, especially in cases that are somewhat more subtle than the one discussed by Kahneman. For instance, Loewenstein and Ubel discuss earlier work of Loewenstein using scenarios depicting patients’ end of life where subjects are asked to evaluate how much time of healthy life they would like to trade-off against a better quality of end of life in the last month before death (the results are at least around 7 months).

2.3 Philosophical perspectives on the fallacies and virtues of narrativity

Notice the tension that arises in Kahneman’s normative position (even leaving aside the internal tensions noted in the above subsection) through Strawson’s (2004; 2007) criticisms. On the one hand, the maximization of instantaneous experienced utility can be taken as an advocacy of episodic ethics. But, on the other hand, that we should seek in the long-run to maximize the integral or sum of these experienced utilities presuppose a form of diachronic ethics. What matters in this tension is that it arises for some “non-trivial” notion of the long-run, in Strawson’s (2004, pp.438-9) sense. The latter argues, quite like Kahneman, that a host of ordinary actions requires an ordered sequences of actions in order to achieve a goal, like making yourself a cup of coffee, but that does not underlie the same type of narrativity than the one that is claimed to be about one’s life and identity by some philosophers and behavioral economists.

Indeed, when one deflates a little bit the unifying power of the notion of narrativity, by recognizing its relevance in ordinary life without generalizing towards one narrative making sense of a whole life, then the notion becomes at the same time more handy and more resilient to existing criticisms beyond Strawson’s. For instance, another critics of narrativity, John Christman, argues that: “[m]any sequences of a person’s life proceed quite independently of each other; plans and projects in one area

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16 In fact, the discussion brings arguments already made in Karlson et al. (2004, pp.67-70) and partly inspired from Loewenstein (1999) in the context of the recent debates over new forms of paternalism triggered by the rise of behavioral economics.
of experience remain quite separate (in time as well as space) from plans and projects” (2004, p.702). That is, even if one grants that there are some narrativity involved in a non-trivial notion of long-run, say ‘life’ for the sake of argument, then one narrative does not necessarily articulate the whole of this long-run. For example some academics practice music or sports at some levels implying non-trivially long-run goal planning, which they may or may not carry as part of the narrative through which they articulate their other non-trivially long-run goals in academia. Peter Lamarque, yet another critic of narrativity in philosophy, put forwards a stronger version of the previous criticism:

“In truth, the most that gets narrated in most lives are life-fragments, highly selected and salient incidents. But a narrative fragment, a clip of narration ordering isolated sequences of events, is an impoverished thing indeed and no basis for grand claims about personal identity. In fact the very theory of narrative undercuts the aspiration of life-wide unity, given that narratives are characterised by their perspectival nature.”(2004, p. 405)

In other words, one of the virtue of narratives arises for their possible plurality on one event. This can be illustrated through a parallel with Ludwig Wittgenstein’s duck-rabbit drawing (2009 [1953], p.204):

Just like it is not possible to see the duck and the rabbit at the same time in Wittgenstein’s duck-rabbit drawing, despite the truths of the propositions that the drawing represents a duck and that it represents a rabbit, an economic agent may agree that two narratives account for one event despite not seeing how the two narratives relate. This is at least how Larmarque pursue his criticism:

“For important sequences of events most people have more than one narrative to tell. All of us return to the major events in our lives and recount them over and over in different narratives
from different points of view. The whole idea of unity and coherence crumbles away. The more important the event the more perspectives it invites, thus the more narratives we relate, often in conflict with each other.” (Lamarque, 2004, p. 405)

In some cases, the “conflict[s]” Lamarque is talking about may indeed cause welfare-decreasing mental problems close to schizophrenia; however in other cases a richer set of descriptions available to an agent to describe his or her experience may be welfare-enhancing. Furthermore, acknowledging multiplicity of interpretations without pretending to master their interrelations can be considered as a mean to avoid a simplistic view of reality.

Notice that one condition of possibility to create different narratives of the same sequence of events hinges on the richness of the public language into which they are expressed. Christman (2015) argues that this dimension of narrativity can have important negative consequences, notably for minorities whose public language conflicts with the dominant public language of a given society. Through two case studies, of a former slave’s and former a Crow Indian’s self-narratives, he tries to show how the need to express who they are now, in contemporary English, produce conflicting accounts of their social identities, though the subject themselves do not experience such a conflict. Though the goal of Christman is to argue against those who defend that we are the stories of our lives, he nevertheless shows how the study of such first-person stories, especially when conflicting versions exist, can be a useful exercise in social or political philosophy, but much less so in terms of theories of actions, agency, personhood and the like.

**Conclusion**

Our purpose in this article was to provide a critical analysis of the various ways narratives can be considered relevant for economics. We tried to put in perspective different accounts of the role of narrativity in economics which were not, to the best of our knowledge, discussed altogether. The critical perspectives of Strawson, Christman and Lamarque have been used, for the sake of pointing out the scopes and limits of these accounts.

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17 Ian Hacking (1995, p.249) provides arguments that go in this direction as well, but he is more interested in the relation between memory and narrativity which are not explored here.
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