Institutions, social norms, and decision-theoretic norms

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ABSTRACT

This article attempts to contribute to the debate on how to define and theorize institutions, particularly regarding normativity and explanations for conformity. Firstly, it proposes some distinctions and concepts: it separates moral from epistemic values, leading to different types of legitimacy and social norms; then it distinguishes different meanings of the term 'normative' and introduces the concept of decision-theoretic norm. Secondly, the article defends a broad concept of institutions by arguing that some institutions are neither social norms nor decision-theoretic ones, a point that matters for institutional change and stability. Some conventions from which innovators break are highlighted as an example.

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The conceptual and theoretical debate on institutions involves many issues. The present paper is particularly intended to address the normativity of institutions and how it relates to the explanations of why people conform to them or not.

These issues are often treated by economists under the rubric of enforcement. The term 'enforcement', however, may be too restrictive and have too negative a connotation. Institutions are not treated here mainly as disciplining devices. On the contrary, institutions do much more than provide incentives and disincentives, exerting instead a profound influence on individual thought and behavior. Institutions are broadly understood here as socially shared patterns of behavior and/or of thought.[1] By this I mean to include patterns that are not only followed, but also many patterns that are prescribed or described – in the sense that they indicate or represent what (not) to do or think in given circumstances – and, in this sense, may be called rules. In other words, institutions here include both patterns actually followed and rules. As a rule, an institution continues to exist even when the pattern is momentarily interrupted and not currently being followed.[2] The concept of institutions includes both a behavioral and a mental dimension. Moreover, the mental dimension need not be reduced to expectations, as

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[1] Are institutions norms of some kind? Why do people act in accordance with them? This sort of question clearly applies to institutions other than collective agents like organizations, although it does apply to institutions within or among organizations. Hence the present paper is not concerned with the conceptual relation between institutions and organizations, even though this is obviously an important part of the larger debate on how institutions should be conceptualized.

[2] This point is emphasized by Hodgson (2006), who refers, for example, to the moments when the relevant people are asleep. I accept Hodgson's proposal to treat institutional rules as dispositions to behave or think according to a certain pattern under particular circumstances (otherwise it would be difficult to see these rules as socially shared); unlike him, I also include actual patterns in my concept of institutions, even though I acknowledge the distinction between tendency or disposition and actuality. There appears to be no consensus on this in the literature (see Hodgson, 2006 for further discussion and references).

is common in those concepts of institutions in economics that do explicitly have such a dimension. It should include shared mental models (to borrow Denzau and North's 1994 expression), which perform a fundamental cognitive role, by providing ways of selecting, organizing and interpreting information. Accordingly, individuals are not taken here as given in relation to institutions, but as having their perception of the world and of themselves (their identities), as well as their preferences, their objectives and their obligations, molded by institutions. Mostly because of this varied and profound influence of institutions on individuals, conformity to existing institutions may occur in quite different situations. Nevertheless, individuals may still develop new ways of thinking and acting, thus breaking with some of the present institutions. The concept of institutions should leave considerable room for different explanations of conformity, as well as for deviation.

This paper tries to make two main contributions to the debate. First, it is intended to contribute to a better understanding of the meaning and scope of those institutions that are *norms* of some kind. In turn, it does so in three different ways. Without being exhaustive, it differentiates two types of values, as well as two types of legitimacy and of social norms: *moral* and *epistemic* (or *cognitive*) ones. While social scientists usually focus on moral social norms, an adequate consideration of the institutions' mental dimension allows one to think of them also as shared patterns of thought that can be epistemic (or cognitive) social norms. In addition, the paper identifies different meanings of the term 'normative' in the literature. Finally, it introduces the concept of *decision-theoretic norms* and contrasts them with *social norms*.

The second main intended contribution of the paper is to the development of a conceptual treatment of institutions able to underlie a theory that emphasizes the possibility of *unconventional behavior* without implying that such behavior is irrational or necessarily subject to social sanctions. The best and most relevant economic example of this kind of behavior is the introduction of an innovation. Another possible important example is financial speculation. In this sense, the arguments made here differ from many existing approaches that treat institutions (apart from organizations) as (1) something that a self-interested individual should follow and/or as (2) a prescription that comes with the threat of negative social sanctions against violators or the promise of positive sanctions for conformity. Although several institutions are indeed like that, this should *not* be seen as *always* true of *all* institutions. Hence those approaches, while not necessarily wrong, are not sufficiently general in scope, at least for some important purposes. The concept of institutions should be broad enough to allow some institutions not to be norms of any sort. The characteristics of institutions are such that they can give rise to conformity while allowing the occurrence of deviation that is not always against the deviant agent's self-interest or subject to social sanctions. This supports their broad conceptualization as socially shared patterns of behavior and/or of thought.[3] Furthermore, even when institutions are reduced to one of those two possibilities or to their combination, an institutional approach alternative to those that have been most commonly pursued in economics may improve our understanding of why this is so.

Although parts of this paper are concerned with semantic clarification, its main purpose is conceptual and, as a result, theoretic. Its focus is on a few central concepts, but these concepts are often closely related to the theory of how institutions influence individual thought and behavior.[4] They may have important theoretical implications, as a consequence of what they allow or do not allow individuals to think and to do. Thus, while the paper does not develop an institutional theory of conformity and deviation, it is intended to reinforce some foundations of such a theory. In turn, this is also important for the theory of institutional stability and change.

It is not suggested here that normativity (together with its connections with explanations for conformity) is the main aspect to consider when conceptualizing institutions and theorizing their stability and change; it is suggested only that it is an important one. Moreover, the nature and the limits of its importance can be clarified by the way in which this aspect is discussed here.

Neither should the focus on normativity (and explanations for conformity) be taken to indicate that people always act instrumentally or, more specifically, in an egoistic way, complying with institutions only if the incentives are adequate. Individual behavior may or may not be instrumentally oriented, that is, intentionally aimed at achieving a certain goal (or a set of goals). Conscious behavior may, in other words, follow what James March calls a logic of consequences, when it is instrumental, or a logic of appropriateness, according to which the individual does what he or she sees as appropriate to a certain role or position (March, 1994). There may also be a compromise between these two logics. In addition, behavior does not need to be egoistic, when it is instrumental. In particular, the goal does not have to be related to an individual's exclusive self-interest, regardless of other people's well-being. In other words, the individual's welfare does not need to be 'self-centered welfare' and/or the individual's goal does not need to be 'self-welfare goal', to borrow some of the terms with which Sen (1985) characterized a hypothetically very 'private' person.

The paper is structured as follows. The concepts of self-enforceable institutions, social norms (both formal and informal), and conventions are discussed in Section 1. Section 2 considers the relation between values and norms and points out that some norms may be moral, but others are epistemic (cognitive). It then distinguishes among different senses of the term

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[3] Other broad conceptualizations are also supported by this type of argument. A particularly good and more detailed one is that provided by Avner Greif in his recent book (2006). Non-mathematically, he refers to an institution as 'a system of rules, beliefs, norms, and organizations that together generate a regularity of (social) behavior' (p. 30). The components of this system (institutional elements, as Greif calls them) are at the same time man-made and exogenous to the individuals whose behavior they influence. Like the broad concept defended here, this does not imply that all institutions are norms of some kind. Greif's view of institutions as 'equilibrium phenomena' and his analytical approach are more restrictive, despite his unorthodox use of game theory. I return to this below, when referring to game theory in more detail.

[4] Douglass North, to cite just one important example, defines institutions by what they do when he writes: 'Institutions . . . are the humanly devised constraints that shape human interaction' (1990, p. 3).

'normative' in the economic and sociological literatures. This distinction is used in Section 3 to introduce the concept of decision-theoretical norm, in contrast to a social norm. While many existing approaches treat institutions as either one or the other type of norm, it is suggested in Section 4 that the concept of institutions should be broad enough for this not to be the case with some conventions. Section 5 presents some concluding remarks.

1. Self-enforceable institutions, social norms, and conventions

As broadly defined above, institutions may or may not require external pressure, in the form of possible sanctions. Institutions that do not require external sanctions to exist are called here *self-enforceable*, in a strong sense. The individual enforces the institutional pattern upon him or herself, with no need for sanctions external to that person, be these sanctions internal to the group or, in the case of legal sanctions, external both to the individual and to the group (self-enforceability has also been attributed a weaker meaning in other segments of the economic literature). Self-enforceability does not necessarily mean that the possibility of positive or negative sanctions does not exist; it only means that this possibility is not required for the existence of a given institution.[5] When this possibility does not exist, the institution is *self-enforcing*—again, in a strong sense. By possibility of sanctions I mean both the threat of negative sanctions and the promise of positive ones.[6]

Social norms are social standards of behavior and/or thought that (a) indicate what people should or should not do or think under some circumstances, (b) are at least in part enforced upon individuals by external sanctions and (c) are internalized by some or even many individuals. In particular, social norms are associated with the possibility of sanctions: if a social norm exists, the threat or promise of sanctions also exists. Moreover, the threat or promise of sanctions helps maintain the norm. On the other hand, for the individuals who internalize the norm, following it is the right thing to do, regardless of the possibility of external, social sanctions.[7] In the literature on social norms, sometimes internalization is described in terms of internal sanctions, in the form of a sense of guilt, shame, pride or the like (e.g., Elster, 1989a, p. 104).

Although following a social norm frees one from the possibility of external and internal sanctions, a social norm is not necessarily followed *in order to* avoid punishment or obtain rewards, be they internal or external. More generally, social norms are not necessarily followed for instrumental reasons (for an extreme version of a non-instrumentalist treatment of social norms, see Elster, 1989a). One of the possible interpretations of internalization consists in relating it to a non-instrumental sense of obligation or duty. In turn, this can be linked to a non-instrumental type of what Sen (1985) calls commitment.

When social norms are followed instrumentally, the objective may or may not be to promote an egoistic interest. In the egoistic case, self-interest could be understood in a broad sense that reflects the consequences of social sanctions—and possibly the internalization of norms, if it were now interpreted in instrumental terms. (This broad sense does not mean, however, that the consideration of sanctions would dictate conformity to every social norm. The rewards for disobedience may outweigh both the internal and external sanctions against disobedience and the internal and external rewards for compliance.) Alternatively, the objective may involve the welfare of a group or community (as already mentioned above, when referring to behavior in general), either in combination with one's own interest or not.

Social sanctions help maintain a norm in two alternative ways: they may reinforce the conformity of individuals who have already internalized the norm or assure the conformity of those who have not. Without some degree of internalization, it may be difficult to explain in some instances why individuals take the trouble to enforce a norm on others. Finally, over time a norm may be internalized by individuals who initially complied with it just because of the social sanctions.

For the individuals who internalize a norm, the latter is self-enforceable. This should not be taken to mean, however, that these individuals necessarily act out of self-interest. At least up to a point, they comply with that social norm and enforce it regardless of the consequences. Moreover, internalization may lead to, and may not be easy to separate from, habituation and non-reflexive repetition of conformity (see also: Posner, 1997; Mercuro and Medema, 2006, p. 313).

Formal norms are defined here as social norms ultimately enforced by the organizations of the legal system.[8] They can also be called legal norms. Informal social norms are those enforced not by the legal system, but by the approval or disapproval of other people in the group or community.[9]

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[5] Here and throughout the remainder of this paper, I use the terms 'sanctions' and 'external sanctions' interchangeably, except when otherwise indicated.

[6] Elster (1989b, p. 99) focuses on the negative side, arguing thus: 'Approval is usually sought for actions that go out of the ordinary and excel in some way, not for actions that conform to a given standard'.

[7] Elster seems to include internalization as a defining characteristic of social norms (1989a, p. 100), so that 'social norms cannot be wholly reduced to external sanctions' (1989b, p. 12, n. 31). Like Elster, Samuel Bowles states that 'conformity to [social norms] is both valued by the actor (i.e., the norm is internalized) and supported by social sanction' (2004, p. 97). With my conceptualization, not every conforming individual has necessarily internalized the norm.

[8] The reference to organizations as enforcers is due to Nee (1998). I find it useful to refer more explicitly to the organizations of the legal system, for two reasons. Firstly, although one may think of organizational by-laws, which are enforced by the organization itself, they are ultimately enforced by the legal system. Secondly, there may be informal organizations, which do not have a legal character and some of which may be illegal (like those of organized crime).

[9] In contrast, Elster (1989a, p. 100) excludes legal norms from his definition of social norms. Elster usefully characterizes legal norms as enforced by specialists and (perhaps less usefully) these specialists as doing so out of self-interest: 'they will lose their job if they don't' (p. 100). While this is a significant difference between legal and informal norms (since the latter may be enforced by non-specialists not guided by self-interest), I avoid a terminology that may suggest that the former are not social. Thus, what Elster calls social norms I call informal social norms—but I would not insist on this terminology.

In the view defended here, not every informal institution (even excluding organizations) is an informal social norm.[10] In other words, not every institution needs to be enforced by the possibility of (legal or non-legal) sanctions and/or internalized. Some conventions may be followed without the possibility of sanctions and without any sense of obligation. Several other authors accept this possibility and also use the term 'convention' to designate this type of institution, but they may not agree with the following concept of convention or may not be satisfied with it (particularly with its non-mathematical character). A convention is understood here as an institution with at least two additional characteristics that other institutions may not have: (a) when followed consciously, a convention is followed at least in part because other people are following it, and not, or not only, because there is an external pressure to comply; (b) it is to some degree arbitrary, in the sense that a hypothetical alternative could replace the actual pattern.

Although some conventions need not be informal social norms, it is possible for a formerly self-enforcing convention to be transformed into an informal social norm (while remaining self-enforceable).

When an institution is a social norm, this helps explain conformity with that institution.

2. Institutions, values and normativity

2.1. Different kinds of value, legitimacy, and social norms

A social norm prescribes some behavior or thought – the proper or right thing for an individual to do or think – according to some principle or set of values.

What kind of value may underlie institutions and what kind of legitimacy institutions might have? Without exhausting all possibilities, we may distinguish between moral values (which usually receive more attention) and epistemic values, the latter applying primarily to institutions as patterns of thought, that is, as shared mental models. Moral values include honesty, justice, goodness, and the like. Examples of epistemic values are compatibility with the empirical evidence, internal consistency, rigor, and relevance.[11] Epistemic values are cultivated in academic life, but they can also be held by agents outside academia regarding both their own mental models or theories about the world and those of other people.

In turn, these two types of value are associated with moral and epistemic legitimacy, respectively. Relatedly, we may distinguish between moral and epistemic (or cognitive) norms. With a concept of norm that is not reduced to the moral aspect and a concept of institution that includes a mental dimension (especially with one that includes shared mental models), we can also discuss whether institutions are social norms in the epistemic (or cognitive) sense.

As mentioned above, the distinction between moral and epistemic values is not exhaustive. To give just another example, one could also refer to esthetic values, as well as to esthetic legitimacy and norms. These concepts may be relevant for economists and other social scientists working on art, architecture, and fashion. Even students and practitioners of mathematics write about beauty, elegance, and esthetic values.

2.2. Different senses of the term 'normative'

It is also useful to distinguish between different senses of the term 'normative'. In both economics and sociology, sometimes this term is used in contradistinction to 'positive' and means 'value-laden', as opposed to 'value-free'. The values that scholars have in mind in this case are most likely moral ones. To the extent that institutions embody values, they have a normative content in this sense. This is probably a point of consensus among the 'original' or 'old' institutionalists and, regarding conventions, among the French conventionalists.

Other times, the term 'normative' is related to what an individual or members of a community should do (often according to an image of how reality should be), but the way in which economists discuss this is usually different from that of sociologists.

In sociology, 'normative' in this prescriptive sense generally means 'pertaining to norms'. Jon Elster, for example, refers to 'normative' as the 'adjectival correspondence of norm' (1989b, p. 98n). More specifically, 'normative' often means 'pertaining to social norms' (e.g., Blake and Davis, 1964, p. 456), given that sociologists are not very interested in strictly private norms. In turn, the sociological concept of social norms seems to be essentially equivalent to (and is the source of) the one adopted above. 'Normative' in this prescriptive sociological sense is related to what an individual should do to conform to a social norm (this is also what an individual should do that would free her from the possibility of an external sanction, but conformity does not have to be aimed at this end). Not only is behavior deemed legitimate on the basis of some principle or set of values, but there is a principle that is not respected by those who deviate from the social norm. The possibility of disapproval and

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Like Elster, Richard Posner, a major exponent of the Law and Economics movement, defines social norms in a way that excludes legal norms, but includes self-enforcing rules, with no need for external pressure (1997, p. 365).

[10] As in the case of norms, the conceptual distinction made here between formal and informal institutions is based on their having or not having a legal character (for example, laws and constitutions, on the one hand, in contrast with table manners and greeting gestures, on the other). For a brief discussion of this and other possible conceptual treatments of these two types of institutions, see Hodgson (2006, p. 11).

[11] Depending on how it is conceived, rigor may include internal consistency. Historically, the notion of rigor has varied within academic circles. In the case of 19th-century mathematics, for example, rigor implied a connection with empirical evidence (Weintraub, 2002, pp. 17, 71).

other sanctions exists because deviant behavior disrespects this underlying principle.[12] This does not, however, exclude the possibility of some individuals internalizing a social norm and thus complying with it regardless of the possibility of social sanctions. In other words, these sanctions are inevitably linked to values, but for any single individual the reverse is not always true, in the sense that values may be held regardless of the existence of potential sanctions.

Some sociologists use the term 'normative' somewhat differently, to refer to compliance with a norm due to a sense of moral obligation. Richard Scott, for example, distinguishes this 'normative' mechanism of compliance from the 'coercive' one, which is backed by sanctions (2001, pp. 51–52). To be sure, the coercive element represented by the possibility of sanctions may be separated, both analytically and in reality, from a sense of moral obligation. A person who believes that compliance with a certain rule is morally wrong (or a hypothetically amoral person, for that matter) may comply with the rule just because of the sanctions; conversely, as already indicated, a person who believes that the rule is morally right may comply regardless of possible sanctions. One should not infer from this, however, that sociologists relate the term 'normative' to a prescription of behavior but not to social norms, so that the 'normative' mechanism of compliance would exist without the 'coercive' one.[13] It seems to me that this could only happen in the case of a strictly private norm. If the values associated with a behavioral prescription are socially shared, a threat of sanctions exists against those who disrespect these values by not complying.[14] At the individual level, this threat may not be necessary for compliance to occur, but at a more aggregate level it exists nevertheless. Only in the extreme case in which *all* individuals complied exclusively because of a sense of moral obligation would the possibility of sanctions play no role (but even then the possibility would still exist). Except when assuming this extreme situation or discussing a strictly private norm, sociologists seem to relate a 'normative' prescription to social norms. In any case, institutions are shared, so that those who argue that they have a normative content, in the prescriptive sociological sense, seem to relate – or actually to equate – them to social norms.

In economics, sometimes the term 'normative' is also used in relation to how one should pursue certain values and, in so doing, contribute to bringing social reality closer to an image of what should be. Alternatively, in the economic literature the 'normative' is often more specifically related to what an individual should do to promote his self-interest, as in a large part of normative decision theory.[15] To cite just one prominent example, John Harsanyi explains that his is 'a normative (prescriptive) theory' in that 'it deals with the question of how each player should act in order to promote his own interests' (1977, p. 16, emphasis deleted).

3. Introducing the concept of decision-theoretic norm

In order to compare and contrast it with a social norm and with a self-enforceable institution, I call a pattern of behavior and/or of thought that is normative in this latter sense *a decision-theoretic norm*. Such a norm may be individual or shared (depending, for example, on whether it refers to a specific situation of an isolated individual or not).

The concepts of decision-theoretic norm and social norm are not necessarily opposed to one another. One of the possibilities is that a social norm can be a decision-theoretic norm in a weak sense: an institution may be said to be a decision-theoretic norm in a weak sense if, *because of social sanctions*, it is *always* in the interest of an individual to conform to that institution, at least when he/she expects (nearly) everybody else to do the same; since social sanctions are involved in this case, such an institution must be a social norm. As mentioned above, social norms are not always followed instrumentally and out of self-interest, but they may be. If conformity is conditional on social sanctions, self-interest is obviously understood in broad terms, reflecting the consequences of these sanctions (which could be combined with internalization, if the latter were interpreted in instrumental terms).[16]

Self-interest, even when it reflects sanctions, does not always dictate conformity to every social norm. When the rewards for disobedience outweigh both the negative sanctions against disobedience and the rewards for compliance, the social norm is not a decision-theoretic norm, even in this weak sense.

In a strong sense, an institution may be said to be a decision-theoretic norm if, *even in the absence of external sanctions*, it is *always* in the interest of an individual to conform to that institution, at least when he/she expects (nearly) everybody else to do the same. Since social sanctions are neither required nor excluded, this institution may or may not be a social norm.

Consider, for example, the rule of driving on the right (or left) side of the road, when not passing another car. It may be illegal not to do so; one may also be subject to informal sanctions if caught disobeying this rule (for example, other drivers may curse the deviant individual). Nevertheless, even abstracting from formal and informal sanctions it is in one's interest

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[12] André Orléan also sees an association between sanctions and values: 'In the sanctions, it is the cohesion of a society around certain values that expresses itself' (1997, p. 189, my translation).

[13] Scott himself does not suggest that. On the contrary, he writes: 'Normative systems include both values and norms' (p. 54). He does not, however, explicitly associate social norms with sanctions.

[14] In contrast, a convention is not necessarily prescriptive, so that there may not exist a threat of sanctions even when there are shared underlying values. I return to this below.

[15] This is typically applied to a private agent, as distinct from a public policy maker, who should be primarily concerned with the public interest. With regard to decision theory, we can add yet another sense of the term 'normative', referring to what one should do to be internally consistent. On internal consistency of choice and self-interest, see Sen (1987, p. 69).

[16] As stated above, conformity with a social norm may be guided by self-interest that includes sympathy for others. In this and other cases, it may occur without social sanctions.

to conform when others are expected to conform. This rule is a decision-theoretic norm, in a strong sense—or, equivalently, a strong decision-theoretic norm. So are other rules that solve a pure coordination problem, in which the interests of the players coincide perfectly or near perfectly. In game theory, a rule or regularity of behavior that is an equilibrium in a pure coordination game with multiple equilibria was originally called a convention by the philosopher Lewis (1969), whose seminal work influenced game-theoretical approaches to conventions and institutions in economics.

Another relatively simple hypothetical example of a decision-theoretic norm, in a strong sense, would be an institutional pattern involving a significant positive network externality (that is, a pattern whose benefit for those who follow it increases with the number of other agents who also follow it or are expected to do so) in a situation where this number tends to reach a point where the positive network externality offsets the possible advantages of non-conformity with the majority (this situation can be represented by something similar to Brian Arthur's 1989 model of competing technologies[17]). In such a case, even without external sanctions, it would be in one's interest to do the same as others are expected to do, at least after a certain number of followers has been reached or expected. Not everybody else has to be expected to choose the same option; a sufficiently large number is all that is required.

In contemporary mainstream economics, it has been common to treat institutions in such a way that conformity is in everybody's interest when the others are expected to conform. All institutions conceived in this way are what I call decision-theoretic norms, even if not always in the strong sense. In the game-theoretic analysis of conventions, for example, this feature of Lewis's definition of convention has been preserved by evolutionary theorists like Sugden (2004) and Young (1993), who have extended the concept of convention to situations of significant conflict of interest. This has been made possible by broadening the notion of self-interest and by allowing the conventional practice to include sanctions. Regarding institutions, more generally, conformity with everybody else's expected conformity is in each individual's interest when institutions are treated as equilibria. Indeed, in equilibrium, each player has no incentive to change his or her strategy if the other players are expected to keep their strategies. The characterization of some equilibria may, however, include the informal negative sanctions imposed on violators by other players and the positive sanctions for conformity (see, e.g., Sugden, 2004, pp. 114–119; Young, 1998, pp. 144–145; Greif, 2006, p. 145). A frequently used example of a strategy that includes such sanctions is Tit for Tat in a repeated Prisoner's Dilemma game. From the game-theoretical perspective, this type of institution is both (1) something that a self-interested individual should follow *and* (2) a prescription that comes with the threat of negative social sanctions against violators or the promise of positive sanctions for conformity. In the terms adopted or proposed here, this institution is a social norm and a decision-theoretic one, but only in the weak sense, if it depends on external sanctions.

The concepts of self-enforceability and decision-theoretic normativity must be distinguished, for at least two reasons. First, a decision-theoretic norm may not be self-enforceable, if enough agents make, for example, the kind of mistakes studied by behavioral economists. Second, being self-enforceable does not necessarily make an institution a decision-theoretic norm.[18] The agents who follow the institutional pattern may do it without social sanctions, but this does not mean that they act instrumentally[19]; nor does it mean, if action is instrumental, that an alternative could not be better, even when conformity by everybody else is expected. In turn, conformity in the latter case does not have to, although it may, involve mistakes; conformity may be due to insufficient innovativity or some other factor. These arguments will hopefully become clearer in the discussion of innovation below.

If an institution is a decision-theoretic norm, this status is a crucial part of the explanation of conformity with that institution. In order to discuss whether an institution has the status of a decision-theoretic norm, a pertinent question to ask concerns the mental representation that agents are assumed to have of the situation. Do they all supposedly have the same mental representation? Even when the representation is not completely the same, do all agents supposedly share enough aspects of their representation so as to see it in their interest to conform if the others will also conform, even regardless of social sanctions, and to expect others to conform?[20]

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[17] Arthur's basic model assumes that two new technologies, A and B, compete for adoption by a large number of potential users. There are two types of users or agents, R and S, in equal numbers. R-agents have an intrinsic or natural preference for technology A, while S-agents intrinsically prefer B. As explained in Table 1, the returns to choosing A or B depend on these intrinsic preferences, as well as on previous adoptions (expected future adoptions are considered in a more complex version of the model).

Table 1
Returns to choosing A or B given previous adoptions.

	Technology A	Technology B
R-agent	$a_R + rn_A$	$b_R + rn_B$
S-agent	$a_S + sn_A$	$b_S + sn_B$

Source: Arthur (1989, p. 118).

Parameters a and b reflect intrinsic preferences. By construction, as a manifestation of these preferences, $a_R > b_R$ and $b_S < a_S$. Coefficients r and s apply to the number of previous adoptions, n_A and n_B, of technologies A and B, respectively. If these coefficients are positive, there is a positive network externality.

[18] This is a potentially important difference between my treatment of self-enforceable institutions and game-theoretical ones.

[19] A social norm can be internalized non-instrumentally, that is, followed regardless of the consequences.

[20] Lewis (1969) presented different definitions of convention. In the one that became most influential in economics (p. 58), there was an assumption that a number of features of a convention were common knowledge in a population. More recent game-theoretic treatments of conventions in economics, such as Young's (1993, 1998) evolutionary approach, have relaxed the common knowledge assumption.

In reality, sharing the whole representation of the situation or even these central aspects may not be always the case. Even when this is indeed the case, it may also be important to ask oneself *why* this is so. In economics, and particularly in its game-theoretic approaches, this question does not seem to be asked very often and very broadly—or at least not as often or as broadly as it should be. It may, however, be as important as the question of the decision-theoretic normativity of institutions (or the related issue of their self-enforceability).

There may be different reasons why an individual sees it as in her interest to conform to an institution when others are also expected to conform, even leaving side the pressure of external sanctions (and some of these reasons may also help explain the very expectation that others will conform). The examples of decision-theoretic norms mentioned above include only some possibilities, most commonly noticed by economists.

The profound influence of institutions on individual thought may be a crucial part of the answer to this question. In this regard, economists should pay attention to the possible contributions of other social scientists who have also written on institutions. The new institutionalism in organizational analysis and in sociology deserves a special mention here.[21] 'For cultural-cognitive theorists', according to Scott (2001, pp. 57–58), 'compliance occurs in many circumstances because other types of behavior are inconceivable; routines are followed because they are taken for granted as "the way we do these things"'. Similarly, DiMaggio and Powell (1991, pp. 10–11) write: 'Institutionalized arrangements are reproduced because individuals often cannot even conceive of appropriate alternatives (or because they regard as unrealistic the alternatives they can imagine)'.

At least in part, this type of contribution is due to the fact that, as reported by DiMaggio (1994, p. 37), '[i]n sociology, the definition of institutions as normative structures invoking evaluations has lost ground to a view of institutions as cognitive formations (categories, typifications, scripts) entailing constitutive understandings upon which action is predicated'. Describing the new institutionalism in organizational analysis, DiMaggio and Powell mentioned 'a cognitive turn in social theory' and wrote: 'Not norms and values but taken-for-granted scripts, rules, and classifications are the stuff of which institutions are made' (DiMaggio and Powell, 1991, p. 15).[22]

4. Some conventions are neither social norms nor decision-theoretic norms

Many existing approaches conceptualize institutions as the equivalent of social norms and/or of decision-theoretic norms. In contrast, I argue that the concept of institutions should be broad enough for this not to be the case with some conventions. This aspect of the concept is important for understanding some cases of deviation and possibly also conformity.

The conceptual relation between institutions and social norms may be clarified by separating two different questions: (1) Are institutions value-laden? (2) Are all institutions social norms? Even if one gives a positive answer to the first question (as I tend to give), this does not imply a positive answer also to the second question. Even if institutions often acquire legitimacy, in the case of some conventions dissent does not risk sanctions, so that these conventions are not social norms. This is possible when the values held by one or more agents who flout the convention are not different from those held by the followers of the convention. Thus, some conventions may be informal social norms, but this is not necessarily always the case.

Likewise, not all conventions and consequently not all institutions (even excluding organizations) are decision-theoretic norms. Someone could agree with this while treating all conventions as social norms. Similarly, someone who treated all conventions as decision-theoretic norms could agree with the earlier statement that not all conventions are social norms. I suggest, however, that *some conventions are neither social norms nor decision-theoretic norms*. If these conventions are not social norms, they must be self-enforcing, but they may be so without being decision-theoretic norms.

For example, conventional behavior may occur because people, at least for some time, do not conceive of alternatives to existing ways of thinking and behaving or do not manage to implement a new alternative. The difference between conventional and unconventional behavior may be due to differences in how people perceive reality and imagine the future, among other factors.

Let us assume, for example, that a certain convention has been followed and that an innovative agent – e.g., a Schumpeterian entrepreneur – adopts an unconventional pattern of thought and of behavior (while continuing to adhere to other social patterns). Admittedly, Schumpeter himself saw social sanctions as present in this situation: for him the innovative entrepreneur has the ability to resist sanctions by defenders of the conventional way of thinking and doing things. More recent authors share this view. I do not deny that the threat of sanctions against innovators may exist, but suggest that this is not necessarily true of all innovations. Thus, not all conventions with which innovators break are social norms. This does

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[21] In the new institutional economics, Greif (2006) has positively incorporated some of this literature into his work.

[22] The book by Berger and Luckmann (1966) is among the works that were influential in steering new institutional sociology and – as the label indicates – especially what DiMaggio (1998) called 'social-constructionist neoinstitutionalism' in this direction. These authors point out that the influence of institutions on our behavior 'is inherent in institutionalization as such, *prior to or apart from any mechanisms of sanctions specifically set up to support an institution*' (Berger and Luckmann, 1966, p. 55, emphasis added). Berger and Luckmann actually state, more radically, that institutions channel human conduct 'in one direction as against the many other directions that would theoretically be possible' and are part of a system of 'social control' (p. 55). This particular element of Berger and Luckmann's work overestimates the power of institutions and has not been incorporated by institutional sociologists like DiMaggio and Powell, who have rightly criticized it: 'Socially provided and constituted scripts rarely prescribe action in a way that unambiguously establishes correct behavior' (1991, p. 22).

not prevent these conventions from having a normative character in another sense: like any institution, they are or may become value-laden.

It is also possible to maintain that not all conventions with which innovators break (to the extent that they can be called conventions) are decision-theoretic norms, in either the weak or the strong sense—which means that some of them may not be norms of any kind. I am not suggesting that someone has explicitly argued that innovators act against their self-interest. Nobody would or should state this, particularly about innovators that turn out to be successful. The current characterization of agents' behavior and conventions in mainstream economics is, however, too restrictive in this regard and does not handle well the case of self-interested individual or collective agents that introduce innovations (as distinct from agents participating in the diffusion of a previously introduced innovation). In the study of institutions, this comment applies in particular to game-theoretical approaches, which portray agents as taking the environment and the set of available strategies as given. This portrait does not fit the innovative agent, who introduces a new strategy and attempts to change the environment. Thus, the formal treatment of conventions in game theory assumes the innovator away, and conventions defined in game-theoretic terms cannot be violated by an innovator. When taken in isolation from its game-theoretical foundation, the non-mathematical notion of convention used by some eminent game theorists is not guilty of the same sin, but, if applied to a convention violated by an innovator, it would have the undesirable implication that the innovator has harmed his or her self-interest. For example, Young (1996, p. 105), in common with Lewis, has characterized a convention as 'a pattern of behavior that is customary, expected and self-enforcing. Everyone conforms, everyone expects others to conform, and everyone has good reason to conform because conforming is in each person's self-interest when everyone else plans to conform'. In contrast, I argue, if that with which an innovator breaks may sometimes be called a convention, then conventions in real life – unlike those in game theory – are not always such that conformity is in everybody's interest when others are expected to conform (with or without social sanctions). The concepts of conventions and institutions should allow one to adequately deal with the innovator. To the best of my knowledge, this has not been the case of the game-theoretic concepts, at least so far.[23]

These comments regarding innovative agents also apply in important aspects to speculators in financial markets.

Even when deviation does not occur, there may be reasons to doubt whether conformity is in everybody's interest. I shall not elaborate on these arguments here. Some of them are in part based on Dequech (2003), and conventions deserve a separate discussion elsewhere.

Focusing on cognitive rather than moral aspects may facilitate the treatment of institutions that are not necessarily norms, especially with a concept of institutions that has a mental dimension, including shared mental models. On the other hand, the normative is not necessarily opposed to the cognitive, as already implied above when referring to epistemic norms.

The possible normative content of institutions in the sense of their (social or decision-theoretic) norm status is an important issue in the theory of institutional *stability* and *change*. If all institutions were norms in the sociological sense and/or in the decision-theoretic sense, it would be more difficult to understand how they can ever *change*. By adopting a concept of institutions that allows us to accept that they are not always one and/or the other type of norm, we can get closer to an adequate understanding of how institutional change can occur as a result of the actions of the agents involved.

This is not to say that it is impossible to gain insight on institutional change by treating institutions as norms of some kind. In the case of game-theoretic notions, for example, although traditional game theory does indeed prevent endogenous change from happening, more recent approaches have taken some steps toward a truly dynamic view (e.g., Aoki, 2001; Greif, 2006). It is necessary, however, to give endogenous change even more scope, avoiding some excessive restrictions that game theory has imposed on agents.

Furthermore, the theory of institutional *stability* is also improved and its scope widened if it can deal with cases in which people comply with existing institutions even when they are not norms of any kind or if it inquires more deeply into people's conception of their interests. Allowing institutions to include patterns of thought and acknowledging their fundamental cognitive role, in particular, may help us understand why people sometimes – or for some time – fail to conceive of alternatives to existing modes of thought and behavior.[24] This may also help explain why others may fail to see a new alternative from the same perspective as someone who proposes it, when such a proposal does occur, which in turn may prevent the alternative from being implemented. Nevertheless, unconventional thinking and behavior is still possible.

5. Concluding remarks

This paper is an attempt to contribute to the debate on how to define and theorize institutions, particularly regarding their normativity and the explanations for conformity.

One intended contribution is the proposal of new concepts and some conceptual distinctions, so as to better organize the debate and the classification of different institutions. A non-exhaustive distinction has been established between moral and epistemic values, which in turn lead to different types of legitimacy and social norms. Different meanings of the term

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[23] Without denying the usefulness of game theory in the study of strategic interdependence, this represents a shortcoming of game-theoretical treatments of institutions, even unorthodox ones by authors who are aware of important limitations of game theory and have transcended some of these limitations, such as Greif (2006). It also poses problems for the view of institutions as equilibrium phenomena.

[24] In game-theoretic terms, this involves the question of why a game has the format that it has.

'normative' in the economic and sociological literature have also been identified. The concept of decision-theoretic norm has been introduced, and compared and contrasted with those of social norm and self-enforceable institution. Moreover, the possible difference between value-laden institutions and social norms has been pointed out.

Another and possibly more important intended contribution is to defend a broad concept of institution in terms of normativity in the prescriptive sense. Some economists and sociologists think of institutions as social norms. Individuals who do not comply risk social sanctions. Other economists think of institutions as that which I have termed decision-theoretic norms. The implication is that individuals who do not comply are not properly pursuing their self-interest. Still other economists also treat institutions as one and/or the other type of norm, but allow their concept to include both. These ways of treating institutions do indeed have applications in many instances of economic life. However, one should ask: what about the innovative individual or organization? And what about the patterns from which this kind of agent deviates? These are questions worth keeping in mind when reading the literature on institutions. After all, to some important extent, introducing an innovation requires thinking and behaving unconventionally. In a more peculiar sense, so does speculating against the current average opinion in financial markets. If all institutions were either social norms or decision-theoretic norms, how would individuals adopt a way of thinking and/or behaving that is not in accordance with existing institutions? And how could the capitalist economy change so much over time? Conversely, if some institutions are not norms of any kind, explanations of conformity and stability must also be broadened to deal with this. The issues discussed here are, therefore, highly relevant for the theory of institutional stability and change.

Some institutions may be followed because people fear social sanctions or have internalized a norm and/or because violating them is harmful to people's self-interest. Other institutions, however, may be followed out of self-interest, but just until some individual or collective agent devises a new way of thinking and behaving or manages to implement this new way. In this sense, it is that which breaks with institutions that poses problems for some concepts and theories of institutions.

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References

Aoki, M., 2001. Toward a Comparative Institutional Analysis. MIT Press, Cambridge, MA.
Arthur, W.B., 1989. Competing technologies, increasing returns and lock-in by historical events. Economic Journal 99, 116–131.
Berger, P., Luckmann, T., 1966. The Social Construction of Reality. Doubleday, New York.
Blake, J., Davis, K., 1964. Norms, values, and sanctions. In: Faris, R. (Ed.), Handbook of Modern Sociology. Rand McNally, Chicago, pp. 456–485.
Bowles, S., 2004. Microeconomics: Behavior, Institutions, and Evolution. Princeton University Press, Princeton.
Denzau, A., North, D., 1994. Shared mental models: ideologies and institutions. Kyklos 47, 3–31.
Dequech, D., 2003. Conventional and unconventional behavior under uncertainty. Journal of Post Keynesian Economics 26, 145–168.
DiMaggio, P., 1994. Culture and economy. In: Smelser, N., Swedberg, R. (Eds.), The Handbook of Economic Sociology. Princeton University Press, Princeton, pp. 27–57.
DiMaggio, P., 1998. The new institutionalisms: avenues of collaboration. Journal of Institutional and Theoretical Economics 154, 696–705.
DiMaggio, P., Powell, W., 1991. Introduction. In: Powell, W., DiMaggio, P. (Eds.), The New Institutionalism in Organizational Analysis. Chicago University Press, Chicago, pp. 1–38.
Elster, J., 1989a. Social norms and economic theory. Journal of Economic Perspectives 3, 99–117.
Elster, J., 1989b. The Cement of Society. Cambridge University Press, Cambridge.
Greif, A., 2006. Institutions and the Path to the Modern Economy. Cambridge University Press, Cambridge.
Harsanyi, J., 1977. Rational Behavior and Bargaining Equilibrium in Games and Social Situations. Cambridge University Press, Cambridge.
Hodgson, G., 2006. What are institutions? Journal of Economic Issues 40, 1–25.
Lewis, D., 1969. Convention: A Philosophical Study. Harvard University Press, Cambridge, MA.
March, J., 1994. A Primer on Decision Making. Free Press, New York.
Mercuro, N., Medema, S., 2006. Economics and the Law, 2nd ed. Princeton University Press, Princeton.
Nee, V., 1998. Norms and networks in economic and organizational performance. American Economic Review 88, 85–89.
North, D., 1990. Institutions. In: Institutional Change and Economic Performance. Cambridge University Press, Cambridge.
Orléan, A., 1997. Jeux évolutionnistes et normes sociales. Économie Appliquée 50, 177–198.
Posner, R., 1997. Social norms and the law: an economic approach. American Economic Review 87, 365–369.
Scott, W.R., 2001. Institutions and Organizations, 2nd ed. Sage, Thousand Oaks, CA.
Sen, A., 1985. Goals, commitment, and identity. Journal of Law, Economics, and Organization 1, 341–355.
Sen, A., 1987. Rational behaviour. In: Eatwell, J., et al. (Eds.), The New Palgrave. Macmillan, London, pp. 68–76.
Sugden, R., 2004. The Economics of Rights, Co-operation and Welfare, 2nd ed. Blackwell, Oxford.
Weintraub, E.R., 2002. How Economics became a Mathematical Science. Duke University Press, Durham, NC.
Young, H.P., 1993. The evolution of conventions. Econometrica 61 (1), 57–84.
Young, H.P., 1996. The economics of convention. Journal of Economic Perspectives 10 (2), 105–122.
Young, H.P., 1998. Individual Strategy and Social Structure. Princeton University Press, Princeton.