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# Economization, part 1: shifting attention from the economy towards processes of economization

Koray Çalışkan and Michel Callon

## Abstract

This article proposes a research programme devoted to examining ‘processes of economization’. In the current instalment we introduce the notion of ‘economization’, which refers to the assembly and qualification of actions, devices and analytical/practical descriptions as ‘economic’ by social scientists and market actors. Through an analysis of selected works in anthropology, economics and sociology, we begin by discussing the importance, meaning and framing of economization, as we unravel its trace within a variety of disciplinary backgrounds. We show how in combination, these works have laid the foundations for the study of economization. The second instalment of the article, to appear in the next volume of *Economy and Society*, presents a preliminary picture of what it might mean to take processes of economization as a topic of empirical investigation. Given the vast terrain of relationships that produce its numerous trajectories, we will illustrate economization by focusing on only one of its modalities – the one that leads to the establishment of economic markets. With emphasis on the increasingly dominant role of materialities and economic knowledges in processes of market-making, we will analyse the extant work in social studies of ‘marketization’. Marketization is but one case study of economization.

Keywords: economization; economic sociology; economic anthropology; performativity; markets, marketization.

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The end of market society means in no way the absence of markets. These continue, in various fashions, to ensure the freedom of the consumer, to indicate the shifting of demand, to influence producer's income, and to serve as an instrument of accountancy, while ceasing altogether to be an organ of economic self regulation.

(Polanyi, 1944, p. 252)

## Introduction

What has been the contribution of economics to the constitution of the economy? Such a query is not new, but it has certainly never been considered as a research priority.

The encounter of science studies with the disciplines of both economic sociology and anthropology has transformed this question into an important topic of research. Through this recent convergence it has been posited that the development of economic activities, their mode of organization and their dynamics cannot be analysed and interpreted without taking into account the work of economists in the broadest sense of the term. The programme – now called the performativity programme – is captured by Callon's provocative phrase: no economy without economics (Callon, 1998).

Much research has been done concerning the formative relationship between economic sciences and markets. This emerging body of studies has profoundly contributed to furthering our understanding of economic phenomena (Callon, Millo & Muniesa, 2007; Fourcade, 2006; Mackenzie, Muniesa & Siu, 2007; Pinch & Swedberg, 2008). Studies such as these have focused attention on a number of new and important issues, one of which Callon (1998) has identified as 'economization'. This term is used to denote the processes that constitute the behaviours, organizations, institutions and, more generally, the objects in a particular society which are tentatively and often controversially qualified, by scholars and/or lay people, as 'economic'. The construction of action(-ization) into the word implies that the economy is an achievement rather than a starting point or a pre-existing reality that can simply be revealed and acted upon.

If the study of economization involves investigating the processes through which activities, behaviours and spheres or fields are established as being economic (whether or not there is consensus about the content of such qualifications), then such processes cannot be dissociated from the effects produced by those disciplines, which, directly or indirectly, seek to identify and analyse the economy. Yet, because of the epistemological difficulties entailed by this type of reflexive acknowledgement, the social sciences (like the natural or life sciences with which they share a certain ideal of objectivity [Daston & Galison, 2007]) have always been extremely reluctant to consider the impacts of their own inquiries on the objects they seek to study. Until recently, economization was not considered to be a research subject in and of its own right.

What follows is a limited and selective inventory of work whose aim is to suggest two main points. First, due to their systematic and rigorous nature, this selection of studies (unwittingly) makes visible the stultifying dead-end to which research leads when it does not question its own contribution to the constitution of its research subjects. Through these studies we will demonstrate that a way of ending this paralysis is to give a name – ‘economization’ – to these empirically identifiable mechanisms, rather than turning around them in silence. In short, our message is that to study the economy one has to start by studying its origins in economization activities.

Second, even though the studies in our selection have not directly addressed the subject of economization, they provide a number of important conceptual and methodological tools for constituting it as a research subject in its own right. The stumbling-blocks these works have encountered – centred largely around how to agree on the kinds of phenomena that should be qualified as economic – and the approaches they have followed in their endeavour to overcome such disputes, yield valuable clues as to what a research programme on the process of economization might involve.

We will start our selective inventory of relevant works with the well-known controversy between formalism and substantivism. This discussion, which has been extensively reported in other places, has been instrumental in shaping subsequent research on the economy. Our aim in revisiting this debate is to highlight one of its crucial lessons, which, in our opinion, has not received sufficient emphasis: that one cannot qualify an economic situation without at some point mobilizing a theory that defines what is meant by economy. In more technical terms, what this famous controversy has demonstrated is that the only way of sustaining questions about the economy has been to slide from a noun to an adjective. In other words, rather than asking what ‘the economy’ (noun) is, there has been a shift towards defining observable criteria which enables one to say that an activity, behaviour or institution is ‘economic’ (adjective).

After presenting our analysis of this debate (which also serves as a reminder of its content for those readers unfamiliar with it) we follow how different disciplines have pursued both formalist and substantivist explorations of the economic in contemporary research. We show how these initiatives highlight, albeit indirectly, that the establishment of an economy involves institutional arrangements and material assemblages, without which nothing economic could exist or be sustained. For reasons pertaining to space and competencies, we have limited our review to three such contributions: those of economics, economic sociology and anthropology. Our selectivity has, admittedly, been strongly conditioned by our own interests, which are of little concern to most economists, sociologists or anthropologists.

Although it might have been possible to delve further into the discussion of the approaches we take under consideration, or even to review yet other analytical approaches, we feel that the three commentaries presented here illustrate sufficiently what needs to be taken into account in the study of

processes of economization.<sup>1</sup> At the end of these two sections, we hope that the reader will have a more precise idea of what is meant by ‘processes of economization’, as well as of the terms by which we intend for these to be studied. In the course of generating a basis for our research programme, we will simultaneously review the contributions and (from our point of view) limitations, of some of the more current alternative approaches.

### **Qualifying the economy: the formalist and substantivist debate**

The debate between formalism and substantivism reached its climax during the 1960s. With regard to what interests us here (the process of economization), we need to emphasize upfront that formalism and substantivism have shared the same conviction. They agree that to decide on the nature of economic activities and their place in collectives, the only acceptable approach is, first, to define a number of theoretical hypotheses and, then, to make and collect theoretical observations that serve to confirm or invalidate them.

As good scientists and adherents of an epistemology that could be qualified as Popperian (quite popular among researchers of those days), substantivism and formalism have been directly opposed, not over the definition of the economy or of what should be qualified as economic, but over the capacity of their proposed definitions to account for the variety of observable realities. What formalism and substantivism denote by the word ‘economy’ is not a real object, then, but a theoretical one whose robustness and relevance have to be tested. In short, they both consider that the economy, and what it is and does, is in the hands of the theoreticians; hence, ‘the economy’ depends on ‘economics’. Scientific work is an essential component of the labour involved in the economization of observed realities. What is more, the modalities of economization are as numerous as the theoretical convictions engaged in the debate.

In the shared epistemology of formalism and substantivism, the validity of the theory depends upon an observation of the facts that it serves to anticipate. This means that in order to grasp ‘the economy’ one has to look for that which is ‘economic’. The shift from a noun (the economy) to an adjective (economic) is the first step in moving towards a study of economization. In place of studying ‘economies’, this leads to the study of ‘economic *X*’ (in which *X* could be a behaviour, a way of reasoning, forms of activity, institutions or arrangements). Economics plays a central role in this shift because it is economics that positions itself to define what these *X*s are and to explain why they can be qualified as economic.

We will now illustrate this point by considering the arguments of formalism and substantivism in turn. Once we have moved beyond their divergences, we will demonstrate how they afford an identical framework for studying processes of economization.

*The formalists: economizing individual behaviours*

The position of formalists is closely linked to neo-classical economics. Its central concept is instrumental rationality: individuals are decision-makers and choose between alternative means to maximize their utility (with the minimum input or effort). Formalism asserts that all human societies can be analysed as collections of choice-making individuals whose actions imply trade-offs between alternative ends and the various means to attain them (Belshaw, 1965; Cook, 1968; Epstein, 1968; LeClair, Schneider & Herskovits, 1968; Pospisil, 1963; Salisbury, 1962; Schneider, 1974; Swetnam, 1973). The necessity of choosing implies a situation in which available resources are limited and must be thoughtfully managed to achieve various goals. As such, formalism defines the economy by its object: the study of utility maximization under conditions of scarcity.

The model of instrumental rationality is sufficiently abstract (it suffices to distinguish means from ends and to posit that individuals are endowed with adequate calculative capacities) to have universal scope. To guarantee its universal applicability to a wide diversity of observable realities, one simply has to posit that the ends being pursued are culturally defined. The goals impelling action do not necessarily need to refer to monetary or financial values but can involve everything that is valued by individuals in terms of religion, ethics, power or altruism. The concept of culture is crucial to the model's success because it makes it possible to explain why certain ends and means are valued more than others within a particular community, even though individuals are generally free to conform to common values or reject them. It is when markets with monetary prices exist that the model is applied explicitly in its full force and purity (Firth, 1967).

In formalism the economy as a set of activities is a secondary, not a primary notion. In effect, formalists care little about defining the economy because they assume that it is everywhere in the first place. The subject of their reflection and investigation is more simple and general: they are concerned with individual action and its universality. This subject is obviously theoretical. It is initially advanced as a hypothesis, leaving supporters of the programme to verify whether empirical observations confirm its validity. The key advantage of this approach is its immense conceptual economy. A single concept, instrumental rationality, is mobilized to account for the diversity of existing societies. It would, however, be more accurate to say that two concepts are needed here. Individual instrumental rationality is tightly linked to culture, where the latter accounts for variations whose boundaries are defined by the former.

Another way of describing this approach is to say that the formalist programme defines individual human action as an essentially economizing behaviour – where economizing is synonymous with instrumental rationality – whose modalities, forms and expressions vary depending on the cultural model. We see how the formalists lithely expunge the question of the economy

by focusing on economic behaviours which are, more exactly, economizing behaviours. The noun is replaced by an adjective (in this case a verbal adjective) and applied to an *X* which (in this case) is individual action. From here, the contention that the economy is consubstantial with human cultures is a tremendously tempting and easy step to take.

It stands to reason that behaviours, qualified by the social scientist as economic or economizing, do not necessarily correspond to what these qualities denote in everyday language, or to what some might associate with the economy in scholarly discourse. In cultures that have price-regulating markets (briefly, Western cultures), the theoretical and common meanings of these terms might, in fact, be similar. In other cultures, the analyst is revealing logics which are ignored (even denied) by the categories of practice. Like any good science, economics (in this case of the neo-classical variety) contributes to making visible regularities and determinations, which, in its absence, would remain invisible to the actors who are unknowingly enacting these regularities. Economizing behaviours – or at least this is what formalists implicitly claim – do not only exist in certain types of society (developed Western societies). They can be seen everywhere, providing that one employs the right tools of analysis and observation.

The formalist approach can be characterized as a genuinely anthropological research programme. It postulates a universal instrumental rationality that induces ‘economic’ behaviours, while simultaneously deploying the notion of culture to account for the diversity of the concrete actions observed.<sup>2</sup> But perhaps more importantly, by uncovering instrumental rationality in numerous locations, the formalist programme produces an effect (of surprise) that is parallel to the role that economics plays in the construction of economic reality. It is precisely this effect that we are identifying as a process of economization. With its focus on cultural variations, formalist economic anthropology is, therefore, the continuation of economics by other disciplinary means. This is a striking piece of evidence of the ways in which economization is bound up in a circle of academic disciplines.

#### *The substantivists: economizing societies*

The substantivist position was first proposed by Karl Polanyi in *The great transformation* (1944). Like the formalist approach, it has an implicit epistemology in which the economy or, more precisely, what is commonly qualified as economic, depends upon definitions proposed by economics. While formalists draw their inspiration from neo-classical economics, substantivists turn to another, older stream of economic thought – political economy. Where formalism made the rational individual the cornerstone of their theoretical framework, substantivism placed the notion of society and the institutions derived from it.

In substantivism, behaviours, activities and forms of organization can be qualified as economic in any society. The existence of these stems from the fact that, in order to survive, humans rely both on nature and on their fellow beings. The term 'economic' qualifies everything that can be linked (by the observer armed with her or his theory to verify/invalidate) to the mechanisms and arrangements through which a society meets its material needs. The substantivist economy is thus an economy of action embodied in a wide variety of institutional configurations, because there are, of course, an infinite number of ways of acting and organizing for subsistence.

To describe the institutional variety of these collective subsistence activities, substantivism introduces distinctions which vary by author, but are generally inspired by *The great transformation*. For Polanyi, the economy could be likened to an instituted process through which goods circulate from hand to hand. Organized around a semi-empirical, semi-logical tripartite sequence borrowed from political economy, this process separated out production, distribution and consumption. To be sustainable, this universalized sequence was framed by institutions and variables that could weave interdependences between individuals so they could contribute to an array of collective subsistence activities.

Institutions ensure the viability of subsistence activities by giving meaning (most often not explicitly economic) to the technical and materialized operations that individuals must carry out to survive. The various types of institutional configurations that can arise can be distinguished according to both the arrangements of interdependency they favour and the social structures they mobilize. Polanyi proposed that we distinguish three specific eventualities: reciprocity, which requires groups of long-lasting relations in order to develop; trading, which takes place in markets; and redistribution, which implies the existence of a centralized organizational structure.

In the analysis of institutionalized processes, activities of production, along with distribution and consumption, are grounded in logics and collective structures that define forms of engagement between individual agents. The accent is no longer on conscious or unconscious individual 'calculations', but on the manner in which goods circulate from hand to hand. Substantivism falls within a longstanding tradition in anthropology, marked, in particular, by the prestigious figures of Mauss (1954) and Malinowski (1922). Substantivism is also poised to strengthen its ties with political economy (which shares the assumption that a society's economic activities stem from its most essential requirements and the logical segmentation of production, distribution and consumption): hence the affinity of substantivism for the Marxist tradition with its strong accent on the circulation of goods (especially commodities).

By examining of the variety of existing modalities of circulation, substantivism has underscored the diversity of economic rationalities that can prevail on both a collective and an individual level. Instrumental rationality which corresponds to bartering or trading is but one possible form. Among others, the dynamics of circulation linked to reciprocity or redistribution obey



alternative logics and rationales. What is more, in the analysis of these various modes of circulation, of which there is an abundance of empirical illustration, it is maintained that each of them will correspond to a specific subset of goods whose nature and sphere of circulation will differ (Bohannon, 1955).

Polanyi's original typology of modalities is not set in stone. Like any classification scheme, it can, and must, continuously be revised on the basis of new observations. Sahlins (1960, 1972), for example, has further distinguished between generalized reciprocity and restricted reciprocity, arguing that bartering and trade constitute a negative reciprocity. He contrasts the gift without a counter-gift (excluding any form of calculation) with the gift followed by a counter-gift (which implies a calculation). Following a similar line of research, Gudeman (1986, 2001) has distinguished between communities and markets. And, in yet another modification, Godelier (1977) has identified individual rationality, as described in formalism, as being the distinctive rationality of the capitalist mode of production. Above and beyond the diversity of classifications they propose, substantivists are in agreement that the market, as well as the instrumental rationality that it promotes, is simply one possible arrangement of economic activity.

Any society – and this point is emphasized by Polanyi himself – combines regimes of exchange in a way that is variable and empirically analysable. Pure gifts, gifts and counter-gifts, bartering and redistribution are present, along with trade, in Western societies, which have been wrongly described as market societies. Likewise, in non-Western societies the most extreme forms of calculative behaviour (negative reciprocity) can exist, in which everyone can acquire the goods they want free-of-cost or at a minimal cost (that is, everyone can try to maximize their interests at others' expense, through guile or fraud). In spite of these observations, substantivists nevertheless agree to recognize the existence of a divide between Western and non-Western societies. According to them, self-regulated, price-regulated markets are found only in the former.

In summary, to define and characterize the activities in a given society as economic, both substantivists and formalists resort to economic theory. However, the substantivists fit into the tradition of political economy, and with it, accept that the institutions shaping the collective and individual logic (or rationality) develop in distinctly imagined realms of production, distribution and consumption. As in the case of the formalists, the process of economization starts with economics, but in substantivism, rather than extending into an anthropology of cultural variations, it opens onto a sociology of institutional differences.

#### *Formalist and substantivist agreement*

There are obviously several ways of interpreting the debate between formalism and substantivism. We believe, however, that to portray this controversy as

nothing more than the juxtaposition of two opposing approaches – one focused on the priority it says should be given to individual rational agents and the other on the pre-eminence of social and institutional structures – is to fall into a dissatisfying caricature of its actual contents. When all is said and done, we find that substantivists have an approach that is altogether similar to formalists.

It is true that, while formalism starts from the individual and arrives at the culture, conceived of as a force and a case of coordination and integration, substantivism departs instead from the existence of institutionalized processes and the mechanisms of integration and reproduction that they establish as a means of describing and analysing the different observable modalities of individual engagement. Nonetheless, what is remarkable is that the two camps actually share the same bipolar conception of economic activities. Their disagreement pertains not to the distinction between individuals and structures. Rather, where they deviate is on the definition of each of these terms, or on the description of how agency is distributed between the individual and the structure.

Another way of underlining this point is to recall that both formalism and substantivism avoid giving general criteria which would make it possible to identify with certainty those elements in a society that could be considered as ‘its’ economy. Instead, their implicit and identical epistemology draws their attention towards that which is economic, what we have called the economic *X*. The salient difference between formalism and substantivism involves the identity of the *X*. For formalists, the *X* is composed of individual behaviours, whereas for substantivists, the *X* is the society itself; it is societies and not individuals which, by necessity, are compelled to act ‘economically’.

Formalism and substantivism share yet another conviction. They agree that, if the task is to distinguish that which is economic from that which is not, the only way of drawing the line between the two is by drawing on available economic theories and by empirically testing their relevance. Both camps seek either to demonstrate the validity of a few formalist assumptions, in order to account for the diversity of observable individual behaviours, or to validate substantivist distinctions while describing the modes of production/consumption of goods and their regimes of circulation.

The productivity of the formalism/substantivism debate cannot be overstated (see below). From our point of view, the controversy is a clear reminder that it is impossible to study the economy in the absence of the theories that discuss them. Moreover, scientifically speaking, the validity and relevance of these theories are evaluated by means of the empirical tests and observations they imply. The result is a double movement that triggers interest in the situations and things that are qualified as being ‘economic’. In formalism, this is individual behaviours and, more particularly, the way in which individuals take their decisions to fulfil their needs; in substantivism, it is societies confronted with the need to survive and live.

Shifting from ‘the economy’ to the ‘economic’ is an essential component of bringing ‘economization’ into perspective. Economizing refers to the activities involved in explaining and clarifying what can be qualified as economic in behaviours, in collectives or individual activities, or in both at once. Both formalism and substantivism clearly show that this qualification is based on the construction of the more or less formalized, more or less theoretical discourses that define the nature of the economic. The actions involved in ‘qualification’ are of the utmost importance here: it would be illusory and unrealistic to talk about what the economy *is* before agreeing on what is considered to *be* economic.

### **Towards the study of economization**

The study of economization cannot be dissociated from the mobilization of economic or socio-economic theories designed to identify the very realities they qualify as being economic. However, although economization begins with economic theory, the qualification enterprise stumbles against a series of obstacles that the debate between formalism and substantivism has highlighted. Saying that ‘economizing’ means identifying economic *X* is a considerable step forward, but the controversy has clearly not been able to settle the identity of the *X* by pinpointing a specific list of things upon which processes of economization would be carried out.

There is, nonetheless, a key lesson to be learned from the debate between formalism and substantivism: that a way of escaping the theoretical dilemma of locating the *X* either in individuals or in society is to focus analysis on intermediating realities that can establish both a theoretical and practical link between the two. In formalism what constitutes these strategic places is values, and for substantivism it is institutional configurations. For our purposes, then, formalism and substantivism invite us to pose questions about the mechanisms by which either values and methods of valuations or institutional arrangements can contribute to processes of economization. It is from this perspective that we will now examine some developments within three disciplines whose exploration has assisted us in understanding processes of economization. We will further express the basis of our proposed programme of research through an examination of selected works drawn from these disciplines.

#### *Economics: institutions as socio-cognitive prostheses*

The real followers of the now-obsolete formalist anthropology are economists. They have enhanced and amended the core assumptions of this position and, what is more, they have even absorbed some central ideas from the anti-formalist stance. It is thus that institutions and culture as concepts have become increasingly central in various schools of economic research, albeit in simplified and disembodied forms. This sea change is well worth nothing. It is

not only the institutionalists and neo-institutionalists, but all major economic trends in the neo-classical, institutional and evolutionary schools that now employ the notion of 'institution'. Even if their definitions of it differ, it is generally agreed upon that individuals would be incapable of coordination if they shared nothing more than judgements or (cognitive) calculative capacities.

Institutional arrangements such as conventions, cultural values and routines provide the individual with prosthetic tools. Some analysts have attempted to determine the extent to which, as well as the conditions under which, an unequipped coordination (between agents endowed only with their cognitive capacities) is possible and efficient. This epistemological tension is highly productive because it obliges those who assume that institutional prostheses are necessary to be extremely rigorous in defining the conditions of their efficiency and usefulness. The idea is that in their will to survive and to expand, and in pursue of their interests, humans create institutions to solve the problems they encounter. In these approaches the social becomes an outcome. It is neither a contextual nest surrounding the economy nor a setting that conditions its limits. That is, the social is not substantively exogenous, but is, instead, formally endogenous to the economy.<sup>3</sup>

For the majority of economists there is nothing revolutionary in the assertion that markets are social and human constructions, but they do see it as a worrying proposition. Such an assertion is not merely a critique; it is also a challenge. This is because economists would like to provide answers to the following practical questions: are some configurations more efficient than others? And, if so, what criteria can be used to rank them? What are the most efficient conditions under which these configurations can appear and be maintained? Irrespective of the school to which they belong, when economists go about answering these questions, they depart from a set of shared assumptions. First, they agree that institutions are required as devices for coordination. This implies that economic agents have creative and innovative capacities. When agents are aware that their cognitive capacities are bounded, they strive to create useful devices to deal with practical problems. So the history of economies in general and of markets in particular is the long history of the inventiveness of human beings, capable of reflection and innovation.

A second shared assumption among economists is the sometimes explicit but often implicit idea that solutions being proposed by agents are always in competition with one another. Competition implies a selection process that is made evident in evolutionary economics, but is equally present in neo-classical economics. National governments and international organizations, usually advised by economists, play an essential role in managing selection (Babb, 2001; Mitchell, 2002; Valdes, 1995). Because selection could result in blatantly under-efficient and even socially unbearable situations if left unattended, the twofold concern of economics is as follows: to unfold the variables that could explain the different levels of market efficiency and to urge governments to follow the experts' advice and expertise either in

designing the markets or in structuring national (or transnational) economies.<sup>4</sup>

At the centre of formalist theses lies a genuine anthropological project in which the human being is defined as a rational maximizer. In its different theoretical versions economics pursues this anthropological investigation by studying individual agents' real cognitive competencies. This cognitive turn (Thévenot, 2006) highlights the importance of certain factors (internal or external to individuals) that limit the efficiency of what Sahlins (1960) called economizing behaviours. It is implied by the economists' practices that anthropology become a more ambitious, more complex, rich and involving endeavour, since the economist–anthropologist must think about the conditions in which humans in society, despite their individual weaknesses and limits, can be 'economized'.

Analysing institutions as socio-cognitive prostheses that facilitate efficient coordination has led certain economists to delve into the black box of human agents' cognitive capacities, and then, quite naturally, to imagine and propose adequate institutions to support the behaviours defined as economic. Assuming that human beings seek to optimize or at least to reach satisfying solutions, but that their calculative capacities and strategic competencies are bounded, economists attempt to seize upon the design of institutions and tools that might be designed to offset these deficiencies in a finer and more appropriate way. We could compare these economists to designers of prosthetic equipment for the disabled, the nature of which is to optimize behaviours where humans do not have the capacity or as yet the means to do so on their own.

Taking the contribution of such economists seriously is another essential element of the programme we wish to develop. Economists themselves demonstrate that the economization of human behaviours is closely related to institutional frames. As we will explore below, this link between institutions and human actors is fundamentally different from the one postulated by the notion of 'embeddedness'. Although foreign to the language of economists, we have employed the concept of 'socio-cognitive prostheses' to underscore this important difference. In our view, practising economists correctly maintain that institutions enhance and bring into existence the competencies which can potentially exist in human beings; institutions afford these competencies the possibility of being enacted.

Envisaging institutions as socio-cognitive prostheses that enable the (economic) formatting of individual behaviours is an important contribution to the understanding of the processes of economization as well as the role of economics and, more generally, the social sciences in these processes. Economizing behaviours can be observed in the narrow frame of certain conveniently-designed institutional configurations. The firmness of such an assertion depends only on the capacity to imagine, test and implement the institutions which make these behaviours possible and effective (MacKenzie, 2006; Muniesa & Callon, forthcoming.)

The implications of economization, as substantivists have suggested, are not limited to the (re)formatting of individuals. They also extend to the (re)configuration of social relations themselves. This is shown by the research in (the new economic) sociology that we will now consider.

*The new economic sociology: the embeddedness approach and economy as the outcome of a process of (social) construction*

Neo-substantivists are recruited from the ranks of the new economic sociology that was developed in the late 1970s and early 1980s. The new economic sociology is now a soundly established, institutionalized discipline with academic departments, handbooks and professional organizations (Swedberg, 2004). The heritage left by the substantivists is captured in the pivotal and polysemous notion of 'embeddedness'. For the sake of our argument, it is noteworthy that, much like the heirs of formalism, the successors of substantivism do not bear any particular resemblance to anthropologists.

It is difficult to present the outline of the new economic sociology with precision, first, because the notion of embeddedness has multiple meanings. Sociologists who refer to it, more or less directly, develop distinctly different approaches because they depend on the type of sociological framework used. Granovetter is one of the emblematic figures of the new economic sociology with his seminal 1985 article, although his version of embeddedness is different from that of Dobbin, Di Maggio or Fligstein, to name a few influential figures in the field (DiMaggio, 1994; Dobbin, 1994; Granovetter, 1985).

For the new economic sociology the 'human economy is embedded and enmeshed in institutions, economic and non-economic' (Polanyi, Arensberg & Pearson, 1957, p. 250). Polanyi's basic formulation has had two advantages. First, it has established a productive link between the essentially European tradition in the sociology of economy, following Durkheim, Weber and Simmel, and heterodox institutionalist economics following Commons (1934) and Veblen (1953) [1899]).<sup>5</sup> What is more, embeddedness calls off the inconvenient peace that Parsons signed with economists: *you study the inside of the economy, I do society and the flows of exchanges and interrelations between the two*. (On this episode, see Stark, forthcoming.)

Embeddedness has rendered the boundary between economy and society obsolete. For the new economic sociology, economy is no longer an independent *subsystem* of society. Rather the former is enmeshed within the latter. From this position imagining two distinct disciplines makes no sense, for economic sociology is actually nothing but a subfield of the greater endeavour of sociology. As such, the new economic sociology is based on a prevailing epistemological and disciplinary project in which sociology is the queen of disciplines. The concept of embeddedness gives rise to a research programme whose ultimate objective is to prove that the economy cannot be removed from

sociological analysis. Economics does not have a monopoly on the analysis of the economy.

By making the concept of embeddedness a rallying cry, the new economic sociology has rid itself of one of substantivism's main goals: the need to define what the economy (noun) or even the economic (adjective) or economizing mean. The new economic sociology has rejected the assumption that a general definition can be given of economic rationalities (and behaviours) as such, and that they can be distinguished from non-economic behaviours. This explains why, especially at first, economic sociology adopted a critical point of view on economics, since the latter is based on this assumption (see section on 'Economics' above). The new economic sociology views markets as one site among many others where the unrealism of economics can easily be demonstrated and where sociology's replacement tools can prove to be more fertile (Granovetter, 2002).

Sociologists such as Bourdieu (2005), Fligstein (2001) and White (2001) have taken a critical or distant attitude to the notion of embeddedness. They nevertheless share with the new economic sociology the conviction that sociologists should not change their analytical tools when they study the economy, and that economics has to be embedded in sociology. In the English-speaking world, then, the new economic sociology can be cast as the most active (US) component of a more general movement that might be called a new sociology of economy.<sup>6</sup> That is why it is appropriate to relate our argument not only to new economic sociology (which specifically refers to embeddedness and to Granovetter's seminal work) but to all sociological approaches that claim that the analysis of economic activities is a field on which to apply sociological theory.

The diversity of approaches that fall under the new sociology of economy has triggered substantial efforts to fight against fragmentation.<sup>7</sup> This is reflected in a recent proliferation of textbooks, readers and handbooks. Dobbin's lengthy introduction to his reader, *The new economic sociology* (2004), is a good example of integrative strategy. Dobbin considers that embeddedness can be studied from four vantage points: those of institutions, social networks, power relations and cognition. For him, the concept of 'convention' (the set of scripts followed by actors) is the bridge connecting these four vantage points.<sup>8</sup> By tracking the complex web of relations constantly being woven between institutions, cognition, social networks and power relations, his version of economic sociology is aimed at analysing how conventions emerge and are stabilized.

Those familiar with the growing corpus of work in what we have named new sociology of economy will probably agree that Dobbin's key concepts account fairly well for the wide diversity of approaches and reasoning within this discipline. In presenting a concise and elegant synthesis of all the explanatory strategies of economic sociology Dobbin's synthesis serves strikingly well to illuminate a profound unity underlying the new sociology of economics: there is no reason to change analytical tools when one redirects one's sociological

curiosity from society to the economy, because the latter is embedded in the former. Dobbin presents numerous empirical examples to make the case that ‘social and economic behaviour alike originate not in the individual but in society’.

We agree with many aspects of the sociology of economy (at least, with Dobbin). First and foremost, they have rightly overcome one of the most worrying limits of substantivism. Without changing the main theoretical cartography of the substantivist argument, sociologists have dragged the explanatory framework from the exotic non-West to the all-too-human West. They maintain that the analytical tools should not be changed when moving from one to the other. So there is an important categorical difference between substantivist anthropology and the new embeddedness sociology.

Secondly, the notion of embeddedness has freed sociological analysis, giving it strong programmatic coherence (dissolve the economy in the social by all possible means), as well as broad latitudinal range. Sociological theory has taken up objects that until now were monopolized by economics or other disciplines such as anthropology or political science. (For a mapping of these new territories annexed by sociology, see Smelser and Swedberg [2005]). Moreover, the absence of a rigid and strict definition of the economy has opened up new sites of investigation such as technical innovation, as well as the numerous configurations of relationships that exist between markets, scientific research and public policies (Powell & Brantley, 1993; Barry & Slater, 2005), as well as within intimacy (Zelizer, 2005), the law (Edelman, 1990; Swedberg, 2003; Stark, 1996) or art (Moulin, 1992; Velthuis, 2005; White & White, 1965), to mention only a few.<sup>9</sup>

Third, by emphasizing that the economy is a social activity like all other human activities (albeit a particular one) the sociology of economy has contributed powerfully to the recognition that there are multiple forms of organization of economic activities, in general, and of markets, in particular. Following in the footsteps of substantivists, these studies show that the economy is the result of diverse processes which have given it specific and variable forms in different times and societies. By deconstructing the economy (by means of general concepts such as networks, power, fields or institutions),<sup>10</sup> the new sociology of economy has contributed to an understanding of the economy as being constantly subject to processes of construction and reconstruction.

Yet, because of its overarching ambition to embed the economy in society and economics in sociology, the new economic sociology has nevertheless pushed a number of questions that we believe are important, into the background. In trying to show that markets can be deconstructed and analysed like any other social reality, the new sociology of economy has missed the progressive construction – celebrated and challenged everywhere – of the particular force known as economic markets. Do we explain something by dissolving the object to be explained in another general and controversial frame – society? The *explanans* being fuzzier than the *explanandum*, this approach



leaves us with a more complicated question: what society is made of? Is it really satisfactory to limit the answer to the usual 'sociological list' without mentioning and analysing socio-technical assemblages and things that circulate from hand to hand? What would an economy be without commodities and their physical properties and materialities?

*Anthropology: the social life and value of things*

As soon as we examine the process of economization (or, in the words of the new economic sociology, disembedding/re-embedding), we are immediately struck by the importance of techniques and, more generally, of materialities in processes of economization. At the theoretical level, the sociology of economy prefers to focus on sociology's favourite objects – networks and social relations, institutions, rules, conventions, norms and power struggles. Yet the empirical research that it has generated increasingly points to the decisive role played by techniques, sciences, standards, calculating instruments, metrology and, more generally, material infrastructure in market formation.

To further our understanding of the part played by materialities (including calculating tools) in processes of economization, we will now turn to a third research stream which has placed things and their circulation at the centre of the analysis. What these studies of economic valuation show is that to build itself up and to become durable, to withstand attacks, to reproduce and even to change, a market is anchored in materialities that structure and manufacture the irreversibilities that ensure its perpetuation (Granovetter & MacGuire, 1998). The construction of markets is a socio-technical construction, not a purely social one.

How, then, are materialities involved in the process of economization? A partial answer to this difficult and complex question can be found in anthropological work devoted to the analysis of the mechanisms of economic valuation. The economic valuation of things implies that their material characteristics are taken into account by agents endowed with judgement and an ability to perform calculations. The work that we examine in this section serves as an introduction to the pragmatics of economic valuation. It will highlight one of the many ways in which the constitution of material devices is part and parcel of the processes of economization.

In this brief presentation, we will draw a distinction between the structuralist and the pragmatic approaches to valuation. Whereas the former, by drawing on concepts like 'regimes of value', 'spheres of circulation' or 'systems of exchange', maintains an opposition between individuals and the structures that contain them, the latter attends to the conditions of complexity and mobility in the relations between things, people and their context. By comparing these two models, we will illustrate the advantages of the pragmatic stance to valuation to the study of economization, in particular, its attentiveness to things and materialities.

*The regimes of value: Marx and Mauss*

Marx and Mauss have been important sources of inspiration for anthropologists interested in studying the differences between Western and non-Western societies. Marxian concepts regarding modes of production, commodification of labour, commodity fetishism, means of production and regimes of accumulation have led to the idea that there is a gap between Western capitalist economies and the others (Godelier, 1977). Drawing on the opposition between gift and commodities, Mauss' work has similarly contributed to a belief in the existence of radically different systems of exchange (see, for example, Douglas [1992] and Weiner [1992] who have conceptualized these differences in terms of reciprocity systems).

The affirmation of two contradictory, incompatible regimes of value, such as capitalism versus non capitalism or commodity versus gift, has been one of the most preferred themes in economic anthropology. This division serves to amplify the substantivist assumption of a radical discontinuity between capitalist and non-capitalist economies. Inspired by Mauss and/or Marx, the value of things within these different approaches is determined by the regime of value in which they are embedded as well as by the spaces in which things circulate. To characterize the duality of these approaches, Guyer (2004) has proposed the notion of 'binarism'.

According to Guyer, analytic binarisms appear in a variety of different forms. Some posit, for example, that there are economies founded on the circulation of gifts, contrasted to those based on commodities (Gregory, 1982); others that there are economies structured by markets contrasted to those structured by communities (Gudeman, 2001). Guyer has further shown that a consideration of money tends to favour such binarist approaches. It is notable, however, that the notion of binarism can equally be applied to classifications that transcend dualistic oppositions. In these cases, appealing to binarisms can serve to highlight the empirical multiplicity of value regimes and to affirming the existence of these as separate spheres, logics or systems. Thus, binarism can be deployed as a means of describing multiplicity.

Bohannan's (1955) seminal work on the existence of different spheres of circulation for different types of goods in Atlantic Africa is an illustration of this type of binarism, in which the underlying hypothesis (i.e. the opposition and incompatibility between two modalities of valuing) is maintained but applies to more mutually exclusive categories. He shows that, within each sphere and category of goods, numerous forms of exchange are possible, but it is always difficult to trade between these separate spheres. Other studies have taken up and empirically confirmed that there are a multiplicity of categories of goods circulating in separate spaces, each with its own form of valuation (for a synthesis, see Godelier [1999, 2003]).

In Guyer's summary of this body of work, 'although this literature enormously enriches critical exploration of things and relationships, the authors have worked primarily with the fundamental concepts of exchange

systems' (2004, p. 19). Regardless of their level of sophistication (simple binarism or multiple separate spheres and regimes of value), these studies are founded on a similar respect for systems that endow circulating things with some kind of specific value. Agency is implicitly granted to structures, regimes, spaces and spheres of circulation while valuation is relegated to a mere effect. In other words, things and people are both treated as though they were being animated by existing structures. This presumes that agents' creative capacities are shaped by the structures they are locked into, while things are screens onto which values are projected.

*From regimes of values to modes of valuation*

Taken as an ethnographical study of value regimes based on various systems of exchange, the anthropology of valuation has enabled us to appreciate complexity. If goods do not possess a value *a priori*, if they can suddenly experience a change of status and if the boundaries between spheres of circulation can be transgressed by some goods, then why not abandon the idea of spheres, regimes and pre-framed statutes? A handful of anthropologists have, indeed, taken this bold step. Instead of starting their analysis with the existence of established differences between spheres, they begin by posing questions about the processes involved in producing such differences.

Three authors have been particularly instrumental in pursuing this approach. Appadurai's *The social life of things* (1986) is one milestone because it focused attention on things and on their careers *per se*, as well as on their different modes of valuation. The notion of a career resonates with authors like Strathern (1988) and Munn (1986), who have pointed out that in situations of exchange, the definition of value is always at stake; nothing can be considered as given or as invariant between such situations. This is a highly fertile point of departure for studying how things, by circulating, can change status. For example, an object can alternate from a gift to a piece of merchandise depending on how it is being valued.

The idea that things have careers frees the analyst from having to hypothesize the existence of overarching spheres of circulation or systems of exchange. Rather than referring to 'regimes of value', it becomes more accurate to speak of 'modalities of valuation', albeit classified and grouped together in large families. That one modality of valuation is enacted over another, at a particular time and in a particular location, depends only on the immediate circumstances of the exchange. Appadurai himself has stressed these processual dimensions of valuation: the values of things are not determined by regimes or exchange systems, but they emerge from sequences of transformations, initiated by people, that modify their status. The choice of modalities engaged does not involve being steeped inside a sphere of exchange or of circulation.

Departing from the idea that different modalities of circulation exist,<sup>11</sup> Thomas has pushed the position even further. Providing a precise and operational definition of the differences between gifts and commodities, he argues that what distinguishes them is the process of de-contextualization and re-contextualization of the thing in question (Thomas, 1991). A gift circulates while preserving the presence of its giver embedded within it, while a commodity erases that connection. A thing might therefore be marked or reconfigured either to convey, within it, the person who put it into circulation and thus to represent him or her, or, to the contrary, to rub out previous attachments and facilitate new appropriations. To explain such transformations Thomas insists upon the importance of local arrangements, practices and bifurcations. For him, the way in which valuation is achieved is the outcome, on a case-by-case basis, of a complex set of interactions and exchanges between people and things.

Like Thomas, Guyer (2004) is interested in studying the interactions between people and things in order to account for the process of valuation. She rightly stresses that modes of valuation are not only multiple, but that they are also locally shaped by creative, imaginative and calculative people. Guyer's notion of marginal gain captures this outcome of distributed work. Through work in numerous locations, people produce commensurability and disjuncture simultaneously. It is precisely during such processes of valuation that people are able to create and exploit asymmetries. People are even more present and influential in Guyer's analysis than are the agents in Appadurai's and Thomas' because they are theorized to possess an intelligence of their interests. Hence, as she argues, there is always a perpetually flourishing diversity of mechanisms of valuation in play.

All three of these authors have abandoned regimes of value and separate hierarchies of spaces devoted to circulation and valuation. For each of them, this shift has led to an acute recognition of the diversity within modes of valuation, and the multiplicity of local practices of valuation that can be generated and implemented, on the ground, by people. To demonstrate this point empirically, the contributors to Appadurai's book describe in great ethnographical detail all the transformations of the things they have studied: Thomas re-examines some of the available descriptions of Kula; Guyer empirically revisits the field explored by Bohannan.

Having examined these detailed empirical studies, we find that it is no longer possible to believe in the *a priori* existence of regimes, systems or spheres. Distinct modes of valuation, differences and asymmetries do exist, but we remain convinced that these are not embedded in pre-existing regimes or bounded systems. Rather, as Guyer (2004) so clearly shows when she puts the notion of 'interface' at the centre of her analysis,<sup>12</sup> modes of valuation are constantly being combined, tinkered with and reinvented. These pioneering works in anthropology are the first steps towards what could be called a pragmatics of valuation.

*Towards the pragmatics of valuation*

The studies discussed above provide many useful elements for a pragmatics of valuation. Nonetheless, the pragmatic approach, particularly with regard to economic valuation, is in need of substantial further development.

As we have pointed out, the anthropological studies in our selection insist on people's contribution (through their competencies and skills) to the processes of valuation; they refuse to ascribe a pre-established status to things, even if the status itself is considered to be multiple. As a result valuation is no longer the effect of structures or regimes, which affect the value through (passive) intermediaries, but it is a consequence of how competent and active people engage with specific things. This important shift highlights the intersection between the materialities of things and people's skills and competencies, in the process of economic valuation.

One way of studying the mechanisms through which things contribute to their own valuation is by starting with their circulation and then highlighting the role of their physical characteristics in the changes of status affecting them. Keane starts with a now commonplace empirical observation, quite close to Appadurai's: things have careers. As he observes while tracing the movement of a banner: 'Note the rapid series of roles through which the piece of cloth moved: by turn, it was a conventional obligation between affines, a figurative banner, a physical encumbrance tangled in a tree, a token of regard meant to placate an irritated guest, a vehicle of insult, a metaphoric rag of poverty, and finally a rejected gift' (Keane, 2001, p. 70).

This description of a banner initially given to be put on a stone tomb illustrates the rich complexity of changes that take place under valuation. Keane explains these unpredictable transformations during the life of this thing by explicitly underscoring their material dimension. 'Thus', he writes, 'the very materiality of objects means that they are not merely arbitrary signs. Their materiality makes a difference both in the source of their meaning and of their destinations' (Keane, 2001, p. 70). Materiality clearly does not determine the regime of value (such as whether an object is a gift or a commodity) into which an object will fall, but it nevertheless exercises a number of constraints.

The link between materialities and valuation has also been highlighted, although quite differently, by Viviana Zelizer. Her work presents a painstaking analysis of how regimes of value are formatted and the links between them. She also explores the modalities of circulation, and the production of persons related to these modalities (Zelizer 1989, 1994, 2002, 2005). Zelizer's concept of earmarking is crucial if we wish to understand the singularity and specificity of a mode of valuation capable of transforming circulating things into gifts. She calls this 'earmarking'. As the etymology of the word suggests, this denotes the material inscription (and consequently the re-qualification) of things, so that they subsequently maintain the presence of the transmitter (or donor or enunciator).<sup>13</sup>

A pragmatically-oriented approach to valuation enables us to understand flexibly why certain things have properties that facilitate their engagements in certain regimes of circulation–valuation rather than in others. It also explains how the establishment of such properties makes certain forms of appropriation easier or more difficult. Things which are chosen (or designed) to act as money (Maurer, 2005, 2006) become greatly accessible. But, once again, nothing is ineluctable. For example, Zelizer shows that by means of earmarking, money, seemingly ‘profiled’ to impose itself as pure merchandise, can be transformed, with slight modifications, into a pure gift.<sup>14</sup> Through the gradients of resistance that it establishes, materiality simply renders certain actualizations or transformations easier or more probable than others.

One of the most important contributions of this new strand of anthropological research is its introduction of the highly original link between circulation, transformation and valuation. Nothing moves on its own. If a good is produced it is because it has a value for its producer; if it is distributed it is because it is a source of value for its distributor; and if it is consumed it is because it has a value in its consumer’s eyes. The forces that explain the circulation–transformation of things are the same forces that give things value. In short, things circulate because they are valued and it is because they are valued that they become goods (Dewey, 1915). Circulation consists of an essentially dual process involving continuous requalification and valuation.<sup>15</sup> This explains why the materialities of things matter.

Emphasizing the activities of transformation and requalification of things as a means of explaining their economic valuation has prompted some to focus, symmetrically, on the role of human beings in valuation practices. Alongside materiality, people are actively involved in the attribution of value to things and behaviours. Here the most noteworthy studies are those on the notion of subjectification in anthropology (Roitman, 2005) as well as in sociology (Miller & Rose, 2008). Subjectification implies that, if some modes of valuation are seen as economic and if they are related to behaviours also considered as economic, it is because agents have been configured and formatted as subjects who are technically and mentally equipped to enact these valuations. Instead of being driven by forces which are above or beyond them, subjectified agents are actively engaged with the very cognitive and material devices that enable them to participate as economic subjects.

People have been endowed with cognitive and practical competencies that allow them to qualify and value things. As Guyer (2004), the strongest proponent and most careful analyst of people’s capacities argues, people can also initiate, create and play with asymmetries between modes of valuation. Guyer is not content just to follow things; she describes how people act upon their careers. She further explores how valuation activity involves political aspects since valuation is deeply rooted in the expression and preservation of particular interests. Zelizer’s (2005) description of the complex process of economization of intimacy, Elyachar’s (2002, 2005) demonstration of how micro-entrepreneurs invoke the evil eye to invent and construe new modalities

of economic values, and Mitchell's (2007) study of the implementation of the de Soto programme, all stress people's capacity for inventing new and politically charged forms of economic life.

Our selection has sought to showcase ground-breaking works that place things front and centre in the study of the modalities of their circulation. This scholarship simultaneously emphasizes the crucial role played by competent people who actively participate in the process of valuation. We can consider this (dual) shift of focus as an important turning point in the study of economization. The issue is no longer to distinguish, demarcate and to contrast regimes such as reciprocity, redistribution or market transactions. Instead, the goal is to understand how complex and hybrid social configurations are perpetually being constructed through the conjoined contributions of circulating material entities, as well as competent agents engaged in valuation practices (Latour, forthcoming).

There are limits to these studies that prevent them from taking the exploration of processes of economization further. When pushed, these authors continue to maintain the analytical divide between things and humans, by reasserting the importance of humans' cognitive capacities. Appadurai's work displays this hesitation quite openly. He writes that 'from a *theoretical* point of view human actors encode things with significance, from a *methodological* point of view it is the things-in-motion that illuminate their human and social context' (1986). This strikes us as a most concise way of arguing against the ontological asymmetry of humans and things while simultaneously supporting it.

Despite an insistence on the supremacy of human agents' engagements, the emerging soft spot we have identified in anthropological scholarship tends towards giving materialities the attention they warrant. Yet at the same time anthropologists remain shy of fully embracing the symmetry between things and human beings. Deeply anchored in the infrastructure of economic thought, asymmetry is difficult to avoid. For example, it is built into the taken-for-granted relationships of production and consumption which presume the ontological divide between animate and inanimate entities, even though this is simply one mechanism for organizing the transformation of beings and their mutual attachments. The critics of the great divide are maintaining another great divide, this time between things and human agents. One great divide ousts another.

There may finally be hope of overcoming the chasm as exemplified by the work of Descola (2005). Summarizing twenty years of research in cultural and material anthropology, he has emphasized that a comparative anthropology must detach itself from dualistic categories. The nature and distribution of beings becomes a matter of research, not of assumptions. Drawing on an impressive review of available empirical studies, Descola opens a new field of investigation where the distribution of agency between things and people is open to variations.

Unlike the anthropologists of valuation whose work we have just presented, however, Descola remains deeply influenced by structuralism. What are considered as variable in his analysis are the general ontological configurations applied to vast social groups and which, within those groups, determine the modalities of agencies' definition and distribution. Things can, for example, be animate, but, once they are, they become prisoners of their destiny. The local variations and differentiations have only secondary importance. Descola agrees to restore the symmetry between humans and non-humans, when the societies he is studying do so, yet he puts people's competencies, their cognitive capacities, as well as things and their materialities, into brackets when he explains why a configuration exists or how it evolves.

The pragmatics of valuation must free itself from both ontological asymmetry and structuralism. It is not enough to say that ontological configurations are diverse. People's competencies and interventions have to be fully recognized to explain why such distributions may appear, evolve, mix, spread and sometimes disappear. Guyer's description of how things are qualified (valued) comes close. For her, qualities or characteristics are not inscribed in things nor are they the outcome of simple human evaluations. Using the notion of scalar judgements and insisting on their local construction, she explains that qualification is a co-productive process whereby things and human identities are enacted as value is created.

We will expand on this joint process of valuation in a second, forthcoming instalment.

### **Conclusion: completing the shift towards economization**

Economization is a complex process. As the performativity programme suggests, and as the controversy between formalism and substantivism demonstrates, the social sciences have contributed to this qualification process in both the present and the past. What the controversy makes equally clear is that what is at stake in economization is, precisely, to identify and characterize entities that have been 'economized'. Examining a select set of social theories has permitted us to advance our exploration of these entities and to discover that they are situated between the individual and society.

On the surface there may seem to be little in common between the prescriptive and interventionist will of economics in the economy, the sociology of economy's stubborn desire to embed the economy in society (and consequently economics in sociology) and anthropology's interest in the process of valuation through which the circulation–transformation of things and persons is achieved. Yet, as we have enthusiastically tried to argue, elements drawn from each, in combination, can provide us with a strong vantage point for studying processes of economization, and especially marketization.



*Economics*, as a diversified discipline, recognizes the innovative activity of human agencies and, incidentally, the role of the social sciences in designing institutions. They regard institutions as important socio-cognitive prostheses that endow agents with extended abilities. Without appropriately-designed institutions, individuals are not able to engage in economic activities *sensu stricto*: the process of economization and especially of economic market construction, as well as their extension, requires suitable institutions. To offset agents' limits – mainly cognitive and somatic – economists are altogether willing to play a part in the design and establishment of those institutions.

*Economic sociology* (or, more precisely the new economic sociology) focuses on the tricky question of agents' coordination. They consequently enrich the description of institutions: socio-cognitive prostheses are much more complicated and diversified than those imagined by economists. By shifting the analysis' centre of gravity towards the institutions in which markets are embedded, economic sociologists allude to the importance of processes of economization. Any economy, whether Western or non-Western, can be studied as a series of effects produced by institutional arrangements. The economic sociologist deconstructs these arrangements to show that there is nothing non-social about the forces explaining their constitution.

As we have pointed out, the scientific agenda of the new sociology of economy tends to be strongly deconstructionist. Its strength is to show the existence of contingent historical processes. However, the new sociology of economy shares the weaknesses that plague social constructionism more generally. It shows only a marginal interest in the production of sustainable asymmetries and the establishment of specific coherences which, through layers of work, can eventually become robust, durable and sometimes even irreversible. It must ignore these dynamics because, by focusing on the social dimension of (de)construction, it drastically underplays the participation of things and materialities in the setting up of gradients of resistance. The economy is reduced to nothing more than a human affair configured by social processes.

*Anthropology* swiftly brings things and materialities back into the picture. Taking a reverse perspective, some anthropologists have unhesitatingly studied the economy, not through human activities, but by following the circulation/transformation of things. This cadre of studies focuses on the material processes that contribute to conferring value on things. In so doing, these processes transform things into 'economic' goods that can pass from hand to hand. Other anthropologists have worked to return cognitive and calculative competencies from engulfing regimes and systems of exchange, to the human and non-human entities themselves, as they are engaged in situations of exchange. Here, the explanation of value has been replaced by the analysis of processes of valuation. Its limit is that an ontological asymmetry between things and humans, at least at a theoretical level, has thus far been strictly enforced.

Anthropological authors have paved the way for a version of anthropology prepared to acknowledge the contributions of both things and people to the process of valuation. To arrive at our research programme, the next, crucial step would be to drop the hypothesis of an ontological asymmetry between valuating subjects/agents and valued things/objects/goods altogether, while integrating the active role of materialities more generally. As thick empirical research can and does show, such asymmetries exist but should be interpreted as the outcome of specific activities.

This brings us to the end of the first instalment of a two-part article. Thus far, we have provided the outline of a new field of investigation. Through the efforts of economists, sociologists of economy and anthropologists of valuation we have demonstrated the necessity of going beyond the notion of economy and towards the study of economization. Yet our work is not done. The steps discussed here need to be completed. First, these largely disconnected contributions and discoveries must be further worked and integrated. Second, empirical analyses of the complex relations between humans and non-humans, via the concept of socio-technical *agencements*, must be encouraged and pursued.

In the forthcoming, second part of this article, we will present an example of an empirical research programme devoted to economization, by discussing a particular form of this process which we call marketization.

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### Notes

1 We have chosen not to introduce the topic of political economy in this article. Given what is of interest to us here (establishing grounds for the analysis of processes of economization) such a discussion would not have contributed anything additional. For the contribution of political economy in the processes of economization see Çalışkan (forthcoming).

2 Characterized in these terms, the formalist programme can be greatly enhanced. As 'progress' is made by certain strands of economics, the individual agent's calculative capacities can be upgraded to take strategic interactions into account, as they are, for example, in game theory. It is also possible to introduce information searches and to select less restrictive optimization criteria. This is done by replacing maximization by the criterion of satisfaction or by introducing the simple ranking of preferences.

3 Some economists go beyond simply recognizing these institutions. They also want to analyse their emergence, transformation and maintenance. For a review of this rich literature see North (1990) and Williamson (1985, 1991), and for a useful synthesis see McMillan (2002).

4 On the role of economists as professionals, see Fourcade (2006).

5 For a presentation of an analysis of the decline of institutionalism, see Yonay (1998).

6 The list of elements conceived of by sociologists as dissolving economic relationships into the social grows by the day: after culture, norms and interpersonal relations, it is now individual emotions or even collective spirit that give capitalism the strength it needs (Boltanski & Chiapello, 2005).

7 Several syntheses have been attempted, for instance those of Carruthers and Uzzi (2000), DiMaggio (2001), Guillen (2003), Smelser and Swedberg (2005) and Swedberg and Granovetter (2001).

8 On the centrality of the notion of convention, but defined differently, see also Dupuy (1989).

9 See also, among many others Carruthers (1996), Carruthers and Stinchcombe (1999), Davis, Diekmann and Tinsley (1994), Duina (2004), Fligstein and Mara-Drita (1996), Fligstein and Markowitz (1993), Podolny (2001), Roy (1997) and Uzzi (1996).

10 This analytical deconstruction is substantively different from the genealogical deconstruction proposed by Derrida.

11 Thomas's originality is that he chooses to start with the circulation/transformation of things to answer the classical questions: is it a gift? Is it an exchange of a commodity? Is there reciprocity?

12 Zelizer achieves the same result in economic sociology. Her critique of the notion of hostile worlds and her fine analysis of people's practical contribution to the creation of values is equally attentive to the active hybridization of modes of values.

13 Some markets, such as those for art, wine, children and domestic services, are obviously strategic locations for studying these switches of framings. In these markets we find a constant entanglement of regimes. It could be interesting to draw a parallel between the concept of earmarking and that of affordance (Gibson, 1979; Norman, 1988). Affordance indicates how, owing to their specific characteristics, things can both propose (promise) and permit (permission) some particular courses of action.

14 Apart from Zelizer, see Miller (2001).

15 This is the approach that one of us (Callon, Meadel & Rabeharisoa, 2002) has followed. He has proposed that an equivalence be established between processes of production and processes of (re)qualification, and between processes of (re)qualification and those of valuation.

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