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THE CONTRIBUTION OF THE SOCIOLOGY OF QUANTIFICATION TO A DISCUSSION OF OBJECTIVITY IN ECONOMICS[i]

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Abstract (100 words)

In this chapter I analyse objectivity in economics from the perspective of the *sociology of quantification* as the result of 'investments in forms' supporting public action and the public discussion concerning collective ends and means to be pursued. Quantification is guaranteed by 'conventions of quantification' that are the outcome of controversies about the good, or convenient, way to evaluate persons and things, according to desirable social goals aimed at. The current emphasis on quantified objectives to evaluate public action urges social scientists openly to discuss, instead of concealing or denouncing, the *agreed upon realism* of quantified objects.

The aim of this contribution is to discuss the issue of *economic knowledge objectivity* from the perspective of the *sociology of quantification* (Desrosières 1992; 1993; 2008). According to this approach, quantification, that is, the expression through numbers of relevant information formerly expressed with words, is a specific "format of knowledge' (Thévenot 1997; Eymard-Duvernay *et al*. 2005) which, by virtue of its high degree of universalism, can support the coordination among anonymous and distant actors. Quantification and objectivity are consequently strictly associated, since historically objectivity emerged in our societies as a fundamental category in the

construction and organisation of modern politics, to qualify a knowledge produced according to conventions (rules and procedures) supposed to guarantee impersonality, impartiality and fairness. Among them, conventions of quantification have progressively become highly valued. In fact, quantification permits us not only radically to limit the distortions produced when knowledge is transferred across time and space but it also makes reasoning 'more uniform' (Porter 1995: 5) through the recourse to formalisation (especially mathematical formalisation). This aspect shows a link existing between the quest for objectivity and the quest for transparency in public decision-making procedures.

Following this line of reasoning, in order to understand the increasing centrality in our societies of quantified knowledge, it is necessary, first of all, to clarify the link existing between objectivity and public action in the public space. A consequence that follows, once objectivity is analysed as the result of a process of 'investment in forms' (Thévenot 1984, 1986) supporting public action, is that quantified knowledge cannot be considered as normative neutral. In order to have objects univocally measurable, agreed upon conventions of quantification are needed (Desrosières 2008: 10-11). These conventions of quantification are the result of controversies and negotiation concerning the good way to quantify. This latter is defined according to the desirable collective goals that quantification is supposed to help to achieve through the public action it supports.

The public demand for quantified knowledge has influenced the evolution of social sciences, especially economics. This evolution has been characterised by a tendency towards the proliferation of quantified economic objects and the increasing use of mathematical formalism. This emphasis on mathematical formalism has progressively

concealed the fundamental role played by conventions of quantification, stressing instead the role of measures. In fact, once procedures for quantification are settled, an effect of reification takes place, turning quantified economic objects into entities that are assumed as naturally measurable. At the same time, these objects can become dysfunctional in guiding decision-making during periods of social and economic transformations that radically challenge existing forms of regulation. It is during times of crisis that conventions of quantification usually return to the spotlight, revealing the artificial nature of quantified economic objects.

In this chapter, I discuss the growing emphasis on social and economic quantified knowledge as related to the recent evolution towards an increasing legitimacy of forms of "governing by objectives" (Thévenot 2010). The growing emphasis on quantified objectives as a guide for public action brings to the fore a specific form of public responsibility on the part of social scientists in openly discussing, instead of concealing or denouncing, what we can call the *agreed upon realism* of quantified objects. Quantified social and economic objects are by definition artificial, but at the same time they have to be considered as real in order to support and stabilise forms of coordination that guarantee the achievement of socially desirable goals. As I will argue throughout this chapter, this apparent paradox is a constitutive tension pervading the public dimension of social life. To keep this paradox open is what makes possible the very same existence of a public space.

OBJECTIVITY AND PUBLIC ACTION IN MODERN COMPLEX SOCIETIES

The existence of a link between the emergence of the category of objectivity and the modern construction of a public dimension in collective life is central to the historical analysis developed by Theodor Porter, who defines objectivity as a 'public form of

knowing and communicating' (Porter 1995: IX). The adjective 'public' implies that what is the object of knowing and communicating should be recognised as the very same object by distant persons, not sharing any familiar or tacit knowledge.

If we understand objectivity as the expression of knowledge in stable and highly conventionalised forms, it is easier to understand the connection often established between objectivity and numbers. Numbers are considered as a way to express things in objective terms. In fact, quantification is a specific language which is endowed with remarkable properties of transferability and stability. Still, numbers alone are not a guarantee of objectivity: 'a land surface can be described quantitatively in an infinite variety of ways. But a square grid has usually been preferred by central governments on account of its greater simplicity. A highly organised labor force was required to produce one, but once in place it permitted land claims to be registered and enforced from hundreds of miles away, with a bare minimum of judgment or local knowledge' (Porter 1995: 22).

In this passage, the objectivity of a measure is associated with its standardisation, that is to the existence of shared *conventions* regulating the way measure has to be actually performed (the square grid). The general validity of these conventions and their enforcement across time and space as the proper way to express things quantitatively, as well as their incorporation into instruments and rules, are what allows us to abstract from personal and local ways to know and to define a form of knowledge that can be widely scrutinised and judged. In this sense, objective knowledge is first of all *impersonal* and *detached* knowledge: objectivity implies subordination to publicly shared standards of personal and local ways to relate to and to judge others and the material environment.

In his historical reconstruction, Porter highlights how impersonality and detachment began to acquire a central place in political life once *universalism* starts to consolidate as a new source of the legitimacy of the rising nation state authority. The validity of law was no longer supposed to depend on intimate knowledge or personal contacts but should be effective over great distances and enforceable by actors detached from local contexts. The development of modern science, that also aims at defining universal laws, has been fundamental in providing standardised, stable and transferrable knowledge for settling conflicts that could no longer be dealt with by resorting to previous forms of local authority and knowledge. The drive for objectivity thus arose in response to a world in which discretion had become suspect and local knowledge had become inadequate in supporting forms of coordination increasingly based on anonymity and distance. This is the modern world of democratic politics, the market economy and industrialisation in which a costly work of objectification of the natural and the social world is pursued in order to make transparent to public scrutiny decisions that are made and that affect the political community (Porter 1995: 32). It is in these circumstances that a specific form of action, that is, *public action*, has historically emerged.

In our societies, what accounts for the public nature of an action is not the public status of the subject who acts. Consequently, public action cannot be confined to the action undertaken by the state. Action is public because it has specific traits of *publicness* (Hirschman 1982). Following Boltanski and Thévenot (1991), the main trait accounting for publicness is *justification*. In our societies, public action is constrained in its unfolding by an imperative of justification. This imperative involves two requirements: a qualification according to general categories (as opposed to personal or singular criteria) of persons, objects and events in the situation; the necessity to establish a

connection between the course of action undertaken in the given situation and a legitimate *common good* aimed at through acting, benefiting the whole political community.

According to Boltanski and Thévenot (1991), our societies can be considered complex, or plural, since different specifications of the common good have historically emerged. The authors identify, through the study of situations of actual disputes and with reference to major works of philosophical thought, six definitions of the common good that in our societies inform six corresponding 'orders of worth',[ii] or coherent principles of evaluation and judgment that can organise the political community. These principles are: market competition, industrial efficiency, public renown, civic solidarity, domestic trust, inspiration.

A consequence of this pluralism is a condition of normative uncertainty that pervades our collective life, accounting for the existence of criticism and disputes. We strive to reduce this uncertainty by stabilising common objects of reference for action: 'persons, in order to cope with uncertainty, rely on things, objects, devices which are used as stable referents, on which reality tests or trials can be based. These reality tests enable judgments to reach a grounded and legitimate agreement and, hence, provide the possibility of ending the disputes' (Boltanski and Thévenot 1999: 367).

The concept of *reality test* is what in Boltanski and Thévenot's approach clarifies the connection existing between objectivity and justification. The authors argue that the relation established by justification between public action and a common good is not merely discursive. Discursive justifications are submitted to reality tests which are performed through objectified knowledge or conventional entities (Desrosières 1993: 19; Thévenot 2007). The key role played by reality tests in justification accounts for

objectivity being a fundamental requirement for the existence of a legitimate public action since the process of objectifying provides clear footholds to describe economic situations, to denounce injustice, to define and act upon public problems. In other terms: 'The formation of a public space in which it is possible to debate contradictory options concerning the political community presupposes the existence of a minimum of elements that can play as common objects of reference to the different actors involved' (Desrosières 1992: 142).

Objectivity is, then, considered in this approach as the result of a social process of *objectifying*, that is, of identifying entities (to *inform* the reality) and of defining conventions guiding the production of knowledge about them (to *conform* the reality) so as to manufacture solid objects of knowledge that are able to support the organisation of the political community (Thévenot 2009).

According to the reality test hypothesis, the process of objectifying knowledge is functional to the stabilization of a specific form of coordination among actors, which is expected to guarantee the achievement of a common good. This implies that an evaluative dimension is inherent to the process of objectification. Let us take the example of market coordination, which aims at achieving the common good of market competition, according to Walras's model of general economic equilibrium. The process of objectifying, in this case, involves the transformation of what are initially 'mere things' into 'market goods', that is, objects whose relevant qualities for exchange have to be unambiguously known to all the participants in the market. If all the participants share the knowledge about the relevant qualities of the goods exchanged, then prices convey all the information needed, and action can be guided by parametric rationality so as to achieve efficient market competition. As pointed out by Orléan

(2003) we should not consider as anodyne the distinction between 'mere things' and 'market goods'. [iii] In both cases we are confronted with objects, but their specific objectivity is distinct. This distinction exists because the objectivity of market goods is defined with reference to the goal of assuring market competition. This goal implies that specific traits of 'mere things' are isolated as relevant for their being exchangeable and have to be categorised in a unanimous way, according to a typology known by everybody. As the case of markets with asymmetric information shows (Akerlof 1970), if we lack a common knowledge of the relevant qualities of the object exchanged, then all the participants in the market have first of all to try to work out the way in which the object is envisioned by others. Consequently, their action is guided by strategic rationality which does not assure that the goal of market competition will be reached. The problem with markets with asymmetric information is exactly that they lack the objectivity of the goods exchanged. By contrast, if actors categorise in a unanimous way, the resulting objectivity of market goods allows for parametric rationality to guide action so as to achieve market competition.

This example helps to clarify that to objectify is to isolate relevant features of reality and to stabilise the forms of producing knowledge and sharing information. We can say that the objectification process is supported by the production of 'investments in forms' (Thévenot 1984, 1986) that bring into existence solid objects of knowledge that set the frame for the kind of coordination needed in order to achieve a specific common good.

The use of the concept of 'investment' is pertinent here, since the construction of a complex socio-technical infrastructure is needed in order to inform and conform reality (the costly part of the investment), but once the form is fixed, uncertainty is radically

reduced, and coordination can be guaranteed a high degree of stability and consensus (the gain of the investment).

Following Thévenot (1986, 2009), an investment in forms can have different degrees of *temporal and spatial validity* as well as of the *solidity* of the socio-technical network involved. *Temporal validit*y is the period of time in which the investment is operative in a community of users. *Spatial validity* refers to the boundaries demarcating the community within which the form is valid. Finally, the solidity of an invested form varies with *the weight of its material equipment*.

It is, then, possible to distinguish *degrees of objectivity*, specified in terms of different degrees of temporal and spatial validity and solidity of the investments in form that assure the production of a solid object of knowledge. A high degree of objectivity is consequently related to a high degree of temporal and spatial validity of the investment. But objectivity is also related to the material equipments needed in order to assure the production of knowledge in the due form. In various fields of policies, for example in health policies, what is called 'evidence' is ranked in terms of 'degree of evidence', that is, in terms of stronger or weaker objectivity. Evidence based on statistical equipments is the one considered as having the highest degree of objectivity, while evidence based on 'expert consensus', for example, does not involve the same solidity, in objective terms. This is because the objectivity based on expert consensus relies on the judgment of experts and not on stable equipments assuring a truly impersonal and detached processing of information. In this example, both forms of knowledge can be considered as objective, since they are both standardised and submitted to shared conventions of general validity. The different weight of the material equipment involved in their

production accounts for the different degree of solidity of these two forms of objectified knowledge.

To summarise, objectified knowledge can have different degrees of objectivity that are related to the higher or lower degree of time and space validity of the form in which knowledge is formatted and to the weight of the material equipment involved in its production. Investments in forms which support the objectification process are meant to stabilise a specific form of public action, that is, an action submitted to an imperative of justification. The gain the investment guarantees is in terms of reducing the uncertainty, that is, of stabilising reciprocal expectations on how people and things are going to act, turning coordination effortless. The way these relationships are shaped and stabilised through informing and conforming reality is supposed to guarantee the achievement of a certain collective goal through the production of a common good, such as market competition or technical efficiency. For example, technical efficiency being what actors aim at in the organisation of a factory, investments in form are made so as to guarantee that this objective informs and conforms the reality of the situation. In this sense, as discussed by Thévenot (1986), the principles of scientific management detailed by Frederick Taylor (1911) can be analysed as an ensemble of tools and methods whose purpose is that of putting into the due form the worker so as to adapt the human resource to standardised machines, guaranteeing through their interaction the achievement of the goal of technical efficiency. These investments in form transform the 'raw' human being into the objectified worker. This transformation is necessary in order to develop a scientific management of the workforce.

Investments in forms thus generate different 'forms of the probable' in terms of what counts as probative or provable reality in order to judge the situation as convenient or

not in relation to a common good that is pursued through coordination. As already argued, a statistically generalised statement is usually considered more objective than knowledge expressed in other forms, let us say through a monographic approach. It should be clear by now that this higher degree of objectivity is not related to statistical knowledge being closer to some kind of true reality of things, but to the fact that it conveys information in a format that has a wider spatial validity and a stronger solidity, in the way I have previously defined these concepts. Moreover, the statistical format of information can be easily included in policy instruments that embody a normative vision of the good organisation of a society, for example in terms of equality (civic worth) or efficiency (industrial worth). But other definitions of collective goals to be pursued in the political community (for example tradition or inspiration) call for a different kind of probative reality and, accordingly, privilege other forms of objectivity. Even if endowed with a lower degree of evidence in terms of spatial and temporal validity and the weight of the material equipment involved, they count as provable reality.

When debating the objectivity of knowledge, it is a shortcut to assume that the issue at stake is the correspondence to some kind of 'true reality'. What is at stake is, in fact, the politics subsumed into the elaboration of objective knowledge, i.e., the wider characterisation of the common good implicit in the criteria used to define the information that has to be considered as probative. The connection existing between different forms and degrees of objectivity and the organisation of the political community, in terms of objectified knowledge supporting different orders of worth, is usually removed from open political debate, once objectivity as public knowledge is collapsed with objectivity as true reality.

The connection existing between the process of objectifying and an evaluative dimension is easily neglected, especially when objectification is produced through quantification. This issue is of particular relevance for this specific kind of objective knowledge which is the knowledge produced by the social sciences, especially economics, of our social and economic world.

CONVENTIONS OF QUANTIFICATION AND THE 'AGREED UPON' REALITY OF ECONOMIC OBJECTS

In the effort of objectification supporting the construction of modern politics, in which public action is submitted to an imperative of justification and competing views are debated in the public space, science has played a crucial role in stabilising a world of so called 'facts' upon which public decision can be exercised. As discussed by Bruno Latour (1989), the perceived exteriority of scientific facts from any judgment or evaluative dimension is the result of 'purification'. Purification is a social process which conceals the negotiations and controversies that produce 'agreed upon' facts. Once set, these agreed upon facts are then presented as facts *tout court*. The purification process consists in creating the condition for the 'agreed upon reality' produced by science to be assumed as the 'truth to nature' reality.

This process of purification, which is distinctive of natural sciences, also takes place in the social sciences, in their effort to objectify our social and economic world. In particular, the transformation of economics from an 'art' into a 'science' is produced through a heavy investment in quantification (the use of numbers to express knowledge), followed by the use of mathematical models (the use of numbers to explain and predict). Quantification is, then, a tool supporting both coordination and the testing of possible courses of action in order to decide.

The purification process, in this case, is marked by the tendency to use 'to measure' as a synonym for 'to quantify' when discussing the expression through numbers of social or economic phenomena. But 'to quantify' is not a synonym for 'to measure' (Desrosières 1993, 2008).

To quantify is first of all to *agree upon* conventions of quantification which define measurable entities and the terms of their being measurable. Measure is possible only at a second stage. Quantification thus implies two distinct steps: to convene (or agree) upon and to measure. Only when conventions of quantification are set, then the actual measuring is possible: 'The idea of measure, inspired by the traditional epistemology of natural sciences, implies that something exists in a format which is already measurable according to a realistic metrology, as the height of the Eiffel Tower' (Desrosières 2008: 3). In the social sciences, or in the evaluation of public action, the frequent use of the verb 'to measure' hides the roles of conventions of quantification and thus it can induce biases.

As discussed by Chiapello and Desrosières (2009), a division of labour currently exists in the field of economics which encourages the confusion between 'to quantify' and 'to measure' or, to put it in other words, a division of labour that assures the purification of economic facts. Quantified data are widely used in economic works to support argumentations, through the use of mathematical models. These data are used without taking into account how numbers are produced, that is, through what kind of conventions of quantification. The emphasis is on methodology, that is on the appropriateness of the formalisation supporting the argument. Data are taken as given. Just a minority of works in economics explores the very same activity of producing measures, and these works are considered as marginal to the debate: 'There was a time

though when the discussion on quantification, on the conventions to be adopted, was attractive to big names in the economic field. For them this was a scientific task of crucial importance and not a marginal detail, as it is considered today' (Chiapello and Desrosières 2009: 188). The discussion concerning quantification is today assumed as the domain of hyper specialised experts, marginal to the main debates: 'the gap between the discussion upstream on the production of numbers and their use downstream has never been so wide. It is inscribed in a form of division of labour coupled with a hierarchy of professional dignity' (*Ibid*.: 189).

The mere descriptive function of numbers is thus isolated from their being always a conventionalised description of the world, that is, agreed upon forms of informing and conforming reality. In fact, conventions of quantification create objects that often had no existence whatsoever before the achievement of this controversial socio-technical process.

Let us take the example of unemployment. Unemployment is a social and historical construction of our societies which results from a process that began at the end of the nineteenth century and culminated in the 1930s. As discussed in the work of sociologists and economists (Salais *et al*. 1986; Topalov 1994), the construction of the object of unemployment was the product of a true 'invention'. Unemployment did not appear as a new name for a previously existing reality, the lack of work, that became more visible with industrialisation. This category was created in order to operate as the cornerstone of the specific social and economic order created by Keynesian regulation. As argued by Gautié (2002), in current controversies concerning both the 'good number' of unemployment and the appropriateness of the existing indicators, the fact that unemployment *is not* the reflection of a pre-existing social reality but a quantified

object whose founding conventions are embedded in a specific form of regulation is largely neglected. What goes unnoticed is the connection between the controversies surrounding the measuring of unemployment and the progressive dismantling of the regime of regulation that justified the very same existence of unemployment as a specific social and economic reality.

This is just an example that shows how, when forgetting the role of conventions of quantification in creating social and economic objects, it is difficult correctly to understand the problems we are confronted with when they start to be dysfunctional, that is, unable to settle disputes and respond to critique.

For a quantified social or economic object to exist, time-consuming negotiations have to take place in an attempt to reach agreement (to *convene upon*) about the selected properties defining this specific social or economic object and the procedures that will assure the uniformity of the measuring. Previous to the possibility of measuring, so as to express phenomena through numbers, there is the active (that is, contested and negotiated) definition of the very same economic or social object and the shaping of 'conventions of equivalence', involving comparisons, negotiations, compromises, translations, inscriptions, codifications, the definition of reproducible procedures of measurement, etc.

As the example of unemployment clarifies, the contested and negotiated definition of conventions of quantification creating social and economic objects takes place within the frame of more general debates concerning the desirable organisation of economic and social life in our societies. If we pretend that expressing social and economic phenomena through numbers is simply a question of measuring pre-existing social and economic realities, we miss the dimension of *social and cognitive creativity*

(Desroisières 2008) which is distinctive of the process of quantification, and more in general of the process of objectifying.

To quantify is not to mirror the world but it implies a transformative intervention: it implies the creation of social and economic objects that are forged in order to support a specific way to represent and express the world around us so as to act upon it. Through quantification, new objects or entities come into existence, and are then used to organise our life in common. To quantify is to reshape our world, introducing new entities that are clearly separated from us, and that, once created, have an independent life. Moreover, quantification constructs a *commensurability*, a space of equivalence that did not exist before, thus simplifying the evaluative complexity of the reality we are confronted with: 'Numbers are the medium through which dissimilar desires, needs, and expectations are somehow made commensurable' (Porter 1995: 86). Relevant meanings and dimensions of social life get lost in this process of commensuration, especially the forms of creating a communality with others that relies on familiarity and proximity (Thévenot 2006; Eliasoph 2007; Centemeri 2011).

It is possible now better to understand in what terms the process of objectifying knowledge through numbers is costly. First of all, it implies the existence of a heavy socio-technical infrastructure that can assure its production. Objectivity through quantification is possible through investment in a set of material equipments and disciplined practices: 'What we call the uniformity of nature is in practice a triumph of human organisation – of regulation, education, manufacturing, and method' (Porter 1995: 32). Second, it is costly in terms of reducing the normative complexity of phenomena. The transparency and large-extent communality that quantification can guarantee go with a form of simplification, i.e. with assuming certain features of a

phenomenon as central, putting other features in the background. Usually the features that can be more easily translated into the language of numbers are the ones that are privileged in the process of quantifying. This implies privileging certain ways to value persons and things to the detriment of others and, consequently, to sustain certain forms of organising social relations to the detriment of others.[iv] In fact, when a space of equivalence is established, then comparison is possible, and 'comparison (that is, to see together) is a political act' (Desorisières 2008: 13). Through creating and stabilising the conditions for 'see[ing] together', the commensuration produced by conventions of quantification changes our political world.

It should be clear by now that what is at stake in negotiations that fix conventions of quantification is the construction of a certain kind of political community that needs a conventional (stabilised) knowledge to rely on for its organisation.

An important aspect that has to be stressed is that, once defined, a convention of quantification cannot conserve the traces of its own negotiated and controversial past, if it has to operate effectively as a principle of coordination: 'any recollection of the processes through which the convention was established would most certainly reopen anxieties about its initial arbitrariness' (Thévenot 2009: 795). This means that a convention of quantification has 'two faces' (Thévenot 2010). Once established, a convention of quantification has to be supported by a sort of 'blind confidence' that turns the conventional form into the 'natural' way to measure a reality. This reification process can be explained as the result of social actors assuming and using the quantified form as their common language. Quantified objects are objects that can 'hold together' (Desrosières 1993: p.18), that is, they are stable and they guarantee a stabilised connection of people and material entities through the creation of a space of

equivalence. The other forms of evaluation and coordination that are sacrificed in the establishment of the convention have to be forgotten for the quantified object to hold together.

This blind confidence, however, can be broken once the convention starts to be dysfunctional. Usually this happens in times of change and crisis when new collective goals emerge that bring a critique of previously existing forms of economic and social order. The conformist, formulaic and inauthentic arbitrariness of the convention of quantification is thus exposed and denounced.

Let us take the example of Gross Domestic Product (GDP). During the 1950s, GDP started to be used conventionally as the appropriate way to express a country's standard of living, even if the convention of quantification on which it is based simply expresses the market value of all final goods and services produced within a country in a given period. Today, GDP is highly criticised as a measure of well-being, since it does not take into account emerging issues in the public definition of what should be considered as well-being (e.g.. environmental quality) and there is an ongoing controversial discussion meant to stabilise new quantified indicators (Gadrey and Jany-Catrice 2005). This example shows how the process of stabilisation of conventions of quantification works, through controversies and negotiations that concern the good way to quantify. The good way to quantify is not to be understood in a merely technical way but is related to the capacity of the quantified object to guide public action in responding to emerging public issues according to the collective goals we want to achieve as a society (for example, in this case, environmental quality). Once conventions are stabilised, doubts disappear concerning the appropriateness of the measure in representing the issue at stake.

What the example of GDP also shows is that we can never completely separate quantification as a support for coordination, which organises our world in common through the active production of quantified objects, and quantification as a tool to 'test' hypotheses and to support public decision through models and formalisation (Desrosières 2008). In fact, GDP was created as part of the national accounting system, as a piece in the theoretical construction supporting the definition of Keynesian policies. Later it was isolated from the model and appropriated by various social actors to express something else, that is, a measure of well-being.

Quantified objects, once created, have a life in different worlds, the world of the expertise of mathematical formalisation, but also the world in which the objectivity of numbers is used in order to build and to support or criticise public issues in the public space.

This circulation of quantified objects across different worlds raises an important challenge to social scientists, that is, the need to create the conditions for discussing in the public space the significance of quantified objects, their founding conventions, and their political impacts.

DISCUSSING QUANTIFICATION IN THE PUBLIC SPACE: WHAT RESPONSIBILITY FOR SOCIAL SCIENTISTS?

The need to debate quantification in the public space is today particularly pressing, considering that the emergence of a neo-liberal state goes with new public management tools that stress the importance of quantified indicators of performance in guiding public action. Benchmarking has become an instrument through which a form of governing by numbers is assured (Power 1997).

A clear example of this evolution is the use of the Open Method of Coordination (OMC) in the European Union. The OMC is based on the maximisation of public action performance judged according to quantified objectives. The qualitative diversity of the different European societies is thus reduced to a position in a ranking. Diversity, once quantified, allows for comparison and becomes a tool to increase competition. Through competition, the system with the better performance becomes the model or the *good practice* to be followed. Public decision is thus presented as transparently guided by objective indicators, with no need apparently to exercise any form of discretional judgment. This quest for the highest degree of impersonality in public decision, limiting the open exercise of judgment, is linked to an evolution that sees an increasing role for accountability over authority in legitimising public action (Porter 1995).

However, public action guided by quantified objectives can be considered as transparent and impersonal only if we forget or conceal the role played by conventions of quantification. If quantified objectives determine public decision, then conventions of quantification become the ultimate place of political decision but their claimed technical and expert status removes them from an open democratic debate (Salais 2008).

'Governing through norms' or 'through objectives' (Thévenot 1997; 2010) implies that politically legitimate authorities are replaced by devices of normalisation and independent authorities of regulation that largely elude democratic political control and critique. Legitimate authority is distributed among a variety of quantified objects, such as indicators of performance, and coordination is left to market mechanisms considered as mere technical procedures of aggregation. The claimed realism of these objects and mechanisms obscures the political dimension of both the market as a specific order of worth and of the issues at stake. If openly debated in their relation to various collective

ends considered as valuable, these issues raise the relevance of other competing modes of evaluation of persons and things that should be taken into account in defining the probative reality to judge public action.

The definition of the 'informational base' (Salais 2008) on which public action and public policies are judged is, then, today, more than ever, a socio-technical process in which fundamental political choices are made. However, the process of production of objectified knowledge about our social and economic world is usually inaccessible to an open public debate. Nothing resembling 'hybrid forums' (Callon *et al*. 2001) has clearly emerged yet to discuss the production of these specific political-technical objects that are quantified indicators guiding today's public action, especially in the economic field.[v]

Moreover, ignorance among the large majority of citizens of the conventions of quantification that produce the numbers on which public action is evaluated contributes to a situation of 'cognitive ambiguity': 'if, for example, the rate of employment increases, the ordinary citizen will assume that his/her opportunities to find a job (conforming to his/her expectations concerning what is a good job) are increasing. But it can be –and it actually is- that European authorities attribute a completely different meaning to the notion of employment, a meaning which is aligned with the policy of deregulation of job markets that they are running and that plays against ordinary citizens' expectations' (*Ibid*.: 313).

The absence of public knowledge and discussion concerning conventions of quantification helps to understand why public debate is nowadays often crowded with numbers that are not able to settle disputes. The connection is lost between the existence of different forms of valuing things and different constructions of objective knowledge

that can, or cannot, support a judgment responding to criteria of evaluation considered as relevant in the situation.

This connection is increasingly removed from an open debate. Truth be told, this connection is not easily debatable. As already argued, economic and social quantified objects are 'conventional', which means that they are the result of an agreement. They are artificial, but at the same time the agreement on which they rest turns them into realities actors can rely upon in order to act. If this tension is not kept open, we tend to swing constantly between two opposing attitudes: to claim that quantified knowledge is an unquestionable reality, on the one hand; to denounce objective knowledge as constructed and then not real, on the other.

The social sciences are still largely trapped in this dichotomy of realism versus constructivism, that prevents us from understanding correctly the objectivity of quantified objects. Neoclassical economics is the typical example of a social science in which quantified knowledge is considered as a 'fact', obscuring the work of setting conventions of quantification and the evaluative dimension implicit in this process. Critical sociology is, on the contrary, the example of a sociology of denunciation, engaged in re-opening 'black boxes' of knowledge in order to show power relationships hidden behind the veil of realism. This position often leads us to think that there will be a reality somewhere, not biased, and accessible to our knowledge (Desrosières 1992).

According to the sociology of quantification, it is possible to work out a different way to deal with the question of constructivism versus realism. Conventions of quantification defining solid objects of knowledge bring into existence realities, even if they are conventional. This realism should be intended as embeddedness in a common world, at cognitive and material levels. Quantified objects are inscribed in a web of

relations that gives account of their validity and solidity, cognitively and materially. This web of relations is made through stabilised connections (for example among categories to classify or technical objects), routines of equivalence, stabilised words to qualify objects and processes, procedures for measurement.

The reality of objective knowledge is related to the fact that countless people consider this same knowledge as an object of reference in order to act and that this object of reference is embodied in institutional arrangements (Desrosières 1992) . This knowledge is an object of reference, but at the same time the object of reference could be questioned, since it is conventional (that is, discretional). Critical conjunctures (or crises) are marked exactly by the questioning of common objects of reference that are denounced or disqualified in their capacity to support the organisation of the political community meant to assure common goods considered as valuable.

Questioning objective knowledge, included quantified knowledge, is always possible, but we have to consider the fact that heavy political, social and technical investments were made in order to produce this objectified knowledge. To dismantle old conventions, so as to create new ones, is a costly operation. That is why, when a conventional object is under critical scrutiny, 'participants in the controversy strive to have earlier investments salvaged and reincorporated into the new ones, which are never created from scratch but are instead founded upon the transformations of former investments, by extending their spatial or temporal validity or their solidity' (Thévenot, 2009: 795).

This resistance to change can be considered a mark of realism. In this sense, 'being real' can be defined as the capacity of objects to pass the *tests of reality* that aim at their

dismantling, that is, objectivity can be seen as the *capacity of objects to object* (Latour 2000).

In the exploration of the conditions that make possible the existence of a public space, we are, then, confronted with a constitutive tension concerning objectivity. Objectivity is needed in terms of the need for stabilised objects of reference necessary for a public debate to take place. Only if 'a world in common' exists can different perspectives on the political community be debateable in the public space (Arendt 1958). At the same time, the debate can always turn into a critique of these same objects of reference that constitute our world in common. The objects of knowledge that furnished our world in common can become the very same object of the debate, because of their conventional nature.

Keeping this tension alive, or 'allowing the unquestionable to be questioned' (Desrosières 1992), is what makes possible the very same existence of public space, as a space in which the exploration of collective ends (and the means to achieve them) is kept open to revision. Assuming and exploring this constitutive tension, without simply concealing or denouncing it, is maybe one of the most important contributions of social scientists to the construction of the conditions for a good life together in a complex world.

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[i] This contribution discusses some of the issues I am currently exploring in an ongoing project funded by the Portuguese Fundação para a Ciência e Tecnologia (FCT): *Choice*

beyond (in)commensurability: controversies and public decision making on territorial sustainable development (BeCom) (FCOMP-01-0124-FEDER-009234).

[ii] Orders of worth are 'coherent principles of evaluation (…). Each defines the good, the just, and the fair – but according to different criteria of judgment' (Stark 2009: 23)'. These multiple orders (civic, market, inspired, fame, industrial, and domestic) are not associated with particular social domains but coexist in the same social space. Usually this coexistence in the situation of the action of different orders of worth, that leads to 'dissonance' or incommensurability, results in the construction of a 'compromise' (Boltanski and Thévenot 1991), that is, to forms of evaluating things and persons that compose two or more different criteria of judgment.

[iii] Considering market goods as self-evident objects is what Benetti and Cartelier (1980:94) call the 'nomenclature hypothesis'. This hypothesis is one of the constitutive assumptions supporting the neoclassical theory of market: 'the nomenclature hypothesis implies supposing as possible a description of a group of things qualified as goods or commodities, previously to any proposition concerning society. To put it in other words, the specific social forms (exchange, production, …) are built on a neutral basis: nature or the physical world'.

[iv] This historically led to excluding, marginalising (even suppressing) forms of social organisation resting on alternative ways to value (Santos 2007).

[v] The research conducted by Callon *et al.* (2000) shows how in the field of environmental risks and health issues, the definition of the relevant objectivity in order publicly to decide increasingly involves recourse to participation procedures that aim at involving the wide variety of 'affected' actors. These authors introduced the concept of 'hybrid forums' to define these situations of public discussion. Hybrid forums are 'forums' because they are open spaces where groups can come together to discuss technical options involving the collective. They are hybrid because the groups involved are heterogeneous (experts, politicians, technicians, laypersons). Their hybridism is also related to the fact that questions and problems are discussed taking into account plural concerns.