

Democracy, scientific inquiry and indicators: a pragmatic perspective¹

Paul-Marie Boulanger* Institut pour un Développement Durable, Ottignies, Belgique
pm.boulanger@skynet.be

Abstract

Important economic and human resources are currently devoted to the construction and experimentation of new indicators of human well-being and of environmental sustainability. However the ontological nature of socio-political indicators and the reasons why they are progressively invading the public sphere are left generally unexplored. This article tries to shed some light on these questions with the help of concepts and propositions borrowed from the writings of two outstanding representatives of the pragmatic movement in philosophy: Peirce and Dewey. First, taking as illustration Lorenzetti's frescoes of the "Allegory of the Good and Bad Government" in Siena, and drawing on Peirce's semiotics we analyze political indicators as signs that circulate between the governments and the public. We then mobilize Dewey's theory of the public and of social inquiry to account for the increasing importance of indicators in contemporary policy-making. Bringing together these two pieces, we discuss the importance of cognitive structures called "frames" in the interpretation of indicators as public signs and the fact that they are most often than not different for the three categories of actors involved in addressing social problems: the political leaders, the experts, and the public. We conclude on the importance of organizing debates between these three partners as early as possible in the social inquiry process in order to avoid mismatches between their respective ways of framing the problems.

Key words: Framing, Measurement, Public, Semiotics

1. Political indicators as signs

There is, in the "*Palazza Publico*" of Siena, in Italy, a series of frescoes painted around 1338-1339 by Ambrogio Lorenzetti and called the "Allegories of the good and the bad government". They occupy three of the four walls of the "*Sala dei nove*"² (Salon of Nine or Council Room), where the nine ruling officials of the merchant oligarchy of Siena – who commissioned Lorenzetti – used to meet. There are six different paintings: Allegory of Good Government, Allegory of Bad Government, Effects of Bad Government in the City, Effects of Good Government in the City and Effects of Good Government in the Countryside. The fresco called the "Allegory of the good government", illustrates with different characters and objects the private and public virtues: Justice with her balance, Wisdom holding a book in her hand, Concord symbolized by a carpenter's plane, etc. "The effects of good government" shows several scenes of the daily life in a peaceful, prosperous and felicitous city. Prosperity is indicated by the many shops suggesting active commercial and economic activity. A wedding procession and a group of dancers gracefully suggest security inside the city walls and its gates widely open over an industrious countryside shows that it is living in peace with its neighbors. The meaning of these scenes is made still more obvious by the contrast with the corresponding fresco of the "effects of bad government" which shows a city in ruin, with deserted streets and demolished houses and only one active business: the armourer. As for the countryside, it shows two armies advancing towards each other. These paintings have given rise to many interpretations, the most recent and well-known by the historian and political philosopher Quentin Skinner. An in depth discussion of Skinner's interpretation of the paintings (Skinner 1999) is out of scope here and far beyond our competences. The reader interested will go directly to Skinner's writings and the many commentators it inspired. Amongst them, we would just mention the very erudite discussion by Boucheron (2005) and his own interpretation of the frescoes. Contrary to Skinner who privileges the "allegories" over the "effects",

¹ This article is a shortened version (in order to comply with the stringent editorial requirements of the organizers) of the author's original contribution to the 59th World Statistics Congress (25-30 Augustus 2013, Hong Kong). I am very grateful to Andrea Saltelli and Anne Davaux for their remarks and suggestions.

² Also called "*Sala della pace*".

Boucheron focuses mainly on the latter and argues that it is the effects that give meaning to the allegories rather than the other way round. The modernity and political efficacy of the paintings lie for him in the exposure of the consequences and outcomes of public policies, more than in the symbolization of principles and maxims.

« L'efficacité réelle du message politique adressé par la fresque de Lorenzetti réside bien dans la représentation des effets. C'est elle qui, par les moyens propres de la peinture dont Ambrogio Lorenzetti joue avec virtuosité, frappe les imaginations, provoque les émotions, impose une vision. Or, cette vision concerne moins les principes du bon gouvernement que ses effets concrets sur la ville et son espace, les gestes et les pratiques de ceux qui la font vivre, les aspirations qui les guident et les dangers qui les guettent. » (Boucheron 2005 : 1198-1199).

According to Boucheron, Lorenzetti is modern because he invites the spectator of his frescoes, amongst which first and foremost the citizen of Siena to confront the discourses to reality and to assess governments not so much on the political principles and values that are supposed to inspire them than on the practical consequences of their decisions. The two paintings on the effects of good and bad governance show them were to look, what are the signs, or, in contemporary language, the *indicators*, to monitor in that respect. Since Charles Sanders Peirce, the founding father of both the pragmatic turn in philosophy and the modern theory of signs, we call "*semiotics*" the science that deals with the nature and interpretation of signs and "*semiosis*", the process of attribution of signification to signs. Peirce developed a triadic conception of the sign as structure connecting three elements: the sign properly said or "*representamen*", an object and an "interpretant".

"A sign, or representamen, is something which stands to somebody for something in some respect or capacity. It addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more developed sign. That sign which it creates I call the interpretant of the first sign. The sign stands for something, its object. It stands for that object, not in all respects, but in reference to a sort of idea, which I have sometimes called the ground of the representamen." (Peirce, 1940 [1897]: 99).

Drawing on his conception of the representational relation as involving three elements, he showed that there are also three different lenses for looking at it. One can look at the specific relation between the *representamen* (S) and the Interpretant (I), at the relation between the Interpretant (I) and the object (O) or at the relation between the sign (S) and the object (O). Though Peirce explored the three of them in depth, it is the relation between S and O that remains the most famous with its now classical distinction between icons, indices and symbols. A *icon* is a sign whose relationship with its object stands in some resemblance and in some quality they share together. Because of that resemblance, S evokes the quality of O in I. Examples of icons are pictures, schemas, diagrams, etc. The *index* and its object are linked by an existential, dynamical connection. Examples of indices are the weathercock, the sundial, the footprint of an animal on the ground, the smoke produced by a fire, etc. Finally, *symbols* are linked to their object through a law, a habit or a convention. For instance, the wedding ring is a symbol of marriage because of a tradition. Words, whose meaning rest upon conventions or habit are symbols. These distinctions are purely analytical. Real signs in general are combinations of iconic, indexical and symbolic attributes even if one generally dominates. For instance, as a representation of a rooster, a weathercock is also an icon but the kind of interpretant it alludes to is most generally the direction of the wind rather than the animal. Furthermore, it can also function as a symbol according to its size, material, location and so on.

As signs, social or political indicators are also liable of the kind of semiotic analysis, for which Peirce has developed powerful conceptual tools and the paintings in the "Sala dei Novi" constitute precisely a fascinating and beautiful illustration of their potential.. Lorenzetti can be credited with the invention of social and political indicators as a democratic device and the Siena's frescoes are delivering a double message. To the citizen, they say: "Discourses and principles are one thing, reality another. It is up to you to decide if your government is good or bad. Just look around you. You are the expert, no need for others ones". And to the government: "Thou shalt be judged on – the consequences

of – your acts.³ And the judge is the public”. More than six hundred years later, the message is more relevant than ever, except that now, we need experts. Or do we?

2. Indicators today: the problem of the public

In Lorenzetti times, all the manifestations of peaceful, commercial, agricultural, art craft and artistic activities both in town and in the countryside could rightly be considered to be faithful indicators of people’s well-being and good governance and were directly perceptible by all the inhabitants of the city. There was no need for indirect and cryptic measurements thanks first to the small dimension of the political community and second to the benign character of the technologies at use. In turn, the common and direct access for everyone to the information necessary for evaluating public policies as well as private activities fostered the sense of belonging to a political community. These two conditions vanished with the establishment of large nations, the spread of capitalism and industrialization, the process of growing interdependency at the global scale and the never-ending development of increasingly powerful – and for some of them, potentially harmful – techniques whose consequences can extend far in space and in time so that they cannot be assessed without the help of specialized knowledge and instruments and experts capable of mobilizing them. These objective conditions entail that we are more and more likely to be negatively affected by the indirect (and often un-voluntary) consequences of policies undertaken without our informed consent (notably, but not only, in foreign countries) and of private activities and transactions in which we had no part. In turn, as climate change and other environmental issues testify, our own private behaviors also have consequences for people remote from us in time and space even if we are not always aware of it. Such are precisely the conditions under which, according to another great American pragmatist, a “public” is likely to emerge. In “The public and its problem” published in 1927, John Dewey gave the following definition of what he meant by “public”: “The public consists of all those who are affected by the indirect consequences of transactions to such an extent that it is deemed necessary to have those consequences systematically cared for”. (Dewey 1927: 45-6). What matters here is the “far-reaching character of consequences, whether in space and time, their settled, uniform and recurrent nature, and their irreparableness.” (idem: 275). When these words were written, the Western world and especially the USA were witnessing an upsurge in the development of technological innovations, the extension of the industrial system of production and the acceleration of globalization so that more and more people were getting adversely affected by the consequences of private transactions in which they had no part. These circumstances were so different from those that had fostered and nurtured the communal, face-to-face, democracy characteristic of the country at its beginnings – the one theorized by Jefferson and analyzed by Tocqueville – that the theory and practice of democracy had to be entirely revisited. Yet, the existence of externalities (as we call today the indirect consequences of private transactions) is not sufficient in itself for a public to be constituted; they must also be perceived and understood. But, according to Dewey, one of the major political problems of the age of technology is that the consequences of many individual or collective behaviors are so diffuse and remote in time that it is no longer possible to perceive them without what he called “social enquiry”, i.e. the scientific investigation of social matters. The purpose of “social inquiry” is at the same time cognitive and political. As “the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the original situation into a unified whole.” (Dewey, 1938: 108), the inquiry is both intellectual and practical. The inseparability of rationality from experience and of the intellectual from the practical is indeed the main feature of pragmatism, a standpoint that the three main representatives of this approach, Peirce, James and Dewey shared, beyond all their differences. However, the objective of the social inquiry was absolutely not to foreclose the democratic debate. On the contrary, its mission was to nurture the debate on the ends and means of the public action and to help the public uncover the common interests of its members with respect to the problem at hand. Dewey was perfectly conscious that his defense of the scientific approach to public problem-solving had the implications that scientists would have to come down from their ivory tower and participate actively in the collective management of social

³ Incidentally, this is also the maxim of pragmatism in epistemology: ideas and scientific propositions are to be assessed against their practical consequences.

problems; a process that was not without some consequences for democracy. During the five years prior to the publication of “The public and its problem”, Walter Lippmann had issued two political science bestsellers, “Public Opinion” and “Phantom Public” in which he advocated an elitist conception of democracy underpinned by the same observations as Dewey on the growing technicality and complexity of modern existence. Dewey’s book is precisely a refutation of Lippmann’s theses and the affirmation that the answer to the difficulties rightly identified by Lippmann was not less democracy but on the contrary, more of it. He wrote: “No government by experts in which the masses do not have a chance to inform the experts as to their needs can be anything but an oligarchy managed in the interests of the few.” (Dewey, 1927: 154). Notwithstanding, Dewey was convinced that though experts were indeed indispensable, their role should be limited to the delivery of the facts necessary to an informed and enlightened debate. The credo of Dewey was that: “The essential need, in other words, is the improvement of the methods and conditions of debate, discussion, and persuasion. That is the problem of the public. We have asserted that this improvement depends essentially upon freeing and perfecting the processes of inquiry and the dissemination of their conclusions. Inquiry, indeed, is a work which devolves upon experts. But their expertness is not shown in framing and executing policies, but in discovering and making known the facts upon which the former depend.... It is not necessary that the many should have the knowledge and skill to carry on the needed investigation; what is required is that they have the ability to judge of the bearing of the knowledge supplied by others upon common concerns.” (Dewey 1927: 208-209).

3. Indicators, experts and the problem of framing

The latter quotation, though written in 1927, introduces us neatly to the different difficulties we encounter today in trying to go beyond the tedious criticism of the GDP and to put forward effective, influential indicators of sustainable well-being. The current discussion about their mode of construction is like a mirror of the debate between Lippmann and Dewey on the respective role of experts, political leader and the public in policy-making. Though acknowledging the role of experts in the process of policy-making, Dewey wanted to keep them apart from the process of framing. As the process of “selecting and highlighting some facets of events or issues, and making connections among them as to promote a particular interpretation, evaluation and/or solution” (Entman, 2004:5, cited by Castell, M. 2009: 158), framing is probably the most crucial step in the treatment of public problems, especially when they can be characterized as “wicked” (Rittel and Weber 1973), ill-structured (Dunn 1988) or “un-structured” (Hisschemöller and Hoppe 1995-6). It follows that the relation between indicators and frames is twofold: like every sign, their interpretation depends upon the frames of the interpreters, and these can vary according to the social and cultural context in general and the position each interpreter occupies in it. On the other hand, as shown in Boulanger (2007) and Davis and Kingsbury (2011), building indicators contributes significantly to the framing of social problems. Therefore, contrary to what Dewey seemed to believe, the framing of problems requires the cooperation of experts, political leaders and the public. This collaboration is necessary because each actor is likely to address the problem from a specific standpoint or frame not necessarily understood – let alone shared – by the others. As a matter of fact, on many issues, experts, political leaders and the public have different grounding ideas and interpret differently the data and figures. According to Bauler (2012:40), “In order to become consistently influential, indicators need to be perceived simultaneously – consensually – by a group of policy actors as being legitimate, credible and salient”. Most probably, expect political leaders will privilege salience; experts, credibility and the public, legitimacy. The problem is then to come to a kind of “overlapping consensus” between them. This is not always straightforward. On some issues, the gap between experts and the public’s frames can be wide and deep. For instance, concerning the treatment of the water problem in America, Yankelovich (1991: 97) observed that: “The citizens of the western states had their consciousness raised about the threat of a water shortage. But they are presented with an unacceptable solution – rationing by price – which enrages them rather engaging them constructively in debate about how to solve a communal problem. The western water problem symbolizes a larger conflict of values with many forms of expression. It is the conflict between communal and market-based values. [...] In a democracy, striking the right balance between communal and market-based values is a task that cannot be

delegated to experts. The fundamental judgments must be made by the citizenry or the very idea of democracy is mocked.”

The gap identified by Yankelovich still exists and manifests itself about almost all current attempts to build credible and legitimate indicators of well-being of both human beings and the environment. Especially, the shadow pricing of environmental services through willingness to pay or willingness to accept methods faces strong resistance from the public and is considered illegitimate (Sagoff 1988). The problem goes perhaps beyond the issue of monetizing what should, according to the public, be insulated from the abrasive influence of money and the market. It could have to do with the nature of measurement as such and its relation to fundamental basic frames we use to shape our social relations and moral judgments. According to the anthropologist Alan Page Fiske (1991), we use four and only four elementary relational models or structures in our social interactions and transactions with the environment. He called them: communal *sharing*, authority *ranking*, equalitarian *matching* and market *pricing*. The communal sharing relation privileges the group over its members, who are all considered equivalent or undifferentiated. This is the ideal model of the family, but also, by extension, of the nation. The authority ranking model establishes some asymmetry between people and ranks them according to some hierarchical criteria. Military ranking is paradigmatic of this model. In the equalitarian matching model, relations are balanced, reciprocal. Eye-for-Eye, Tit-for-Tat, one person-one vote are manifestations of the equalitarian matching pattern. What market pricing corresponds to is obvious enough and doesn't need more explanation here. These relational schemas are too abstract to guide behavior but every society provides implementation rules that specify when, how and to whom apply each of them. As a corollary, transgressing these rules is considered at worst as violating a taboo or at least as just indecent. What is interesting with the four patterns is that they match exactly the four scales of measurement distinguished by Stevens (Stevens, 1949), which are the bread-and-butter of quantitative sociologists and statisticians. The communal sharing properties are those that characterize the nominal scale (equivalence relations); the authority ranking models matches exactly the ordinal scale; equalitarian matching corresponds to the interval scale and the market pricing, to the ratio one. Statisticians working on indicators are naturally inclined to privilege the scale that offers the more mathematical operations, in other words the ratio scale or, at worst, the interval one. However, so doing they may, unwillingly, violate a kind of unconscious cultural taboo banning the application of market pricing or equalitarian matching rules to what is considered falling under the communal sharing or the authority ranking pattern. And, as Aristotle remarked: “it is the mark of an educated man to look for precision in each class of things just so far as the nature of the subject admits.”(Nicomachean Ethics I.1.§17.).

4. Conclusions

Political indicators are signs that circulate between political leaders, experts in different disciplines, and the public; a circulation channeled and largely controlled by the media, which is not without important consequences⁴. The time of Lorenzetti's paintings of the “Effects of the good and the bad government” is over. Nowadays, as Dewey noted as early as 1927, we need experts and measurements in order to assess if our governments and our own activities are good or bad, right or wrong. However, even selecting a measurement scale, for instance, is never a purely technical act. It is the translation (the “iconisation”) of a vision, a particular way of framing the objet and, therefore, it sets the stages for the way others are going to interpret the signs and to act accordingly. It follows that, contrary to what Dewey thought, restricting the role of experts in the “social inquiry” to the collection and delivery of facts and keeping them apart of the framing of the problems and policies is hopeless. Measuring is also framing. Nowadays, the importance of the association of the public to the construction of political indicators is generally acknowledged. We are aware that leaving it to experts and political leaders only is paving the way to technocracy. On the other hand, banning experts from the dialogue between policy-makers and experts on indicators is running the risk of demagogy and populism. The problem now is that too often, the dialogue with the public, even when honestly and seriously settled, comes too late in the process, when the crucial decisions, those that have to do with

⁴ See, for instance, Castells. M. (2009). *Communication Power*. Oxford: Oxford University Press.

the framing of the issues, have already been taken. Coming at the later stages of the process, the reactions of the public are likely to be either inaudible because starting from a different cognitive and axiological background and considered too radical, or insignificant. In order to align what Peirce called the “ground” of the interpretation, it is from the very beginning that a dialogue must take place between policy-makers, experts and the public.

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