The Indicator Syndrome – Agenda 21 and Agenda 20

Rafael Ziegler (Rafael.Ziegler@mcgill.ca)

Paper presented at the 2004 Berlin Conference on the Human Dimension of Global Environmental Change "Greening of Policies: Interlinkages and Policy Integration"

Panel 4C: Indicators and Assessments

Abstract: The last decades have seen great efforts to develop sustainable indicator frameworks that in some way or other attempt to provide information for decision-making, allow the monitoring of progress and the operationalisation of sustainable development, and facilitate communication, education and participation. A recent survey registers more than 600 initiatives on all levels of governance.

This paper is an attempt at a critical taking-stock exercise. After a brief review of shared features of indicator research, it investigates the question how indicators disclose and influence the domain of the political (alongside the much more widely discussed laws and principles). This investigation leads to a methodological suggestion concerning historical integration, with consequences for the saliency of indicator research.

Asking how indicators disclose a political space leads to their role as cognitive and normative commitments. This realization calls for a qualification of the widespread notion of indicators as a "tool" for sustainable development. If indicators can disclose a political space in the first place, and if we life in a statistical age with many indicators, then the conception of indicators as tools for achieving Agenda 21 and sustainable development and Agenda 21 is too narrow. Indicators are also something that political actors are *already* guided by: "Agenda 20". In the latter function, they are enormously powerful, but not necessarily developed for, or related to sustainable development. The methodological suggestion developed in this paper, suggests taking Agenda 20 explicitly into account, to seek historical integration in indicator research so as to improve the saliency of indicator research.

§ 1 Introduction¹

It is not easy to think about the sustainability problematique without indicators. From per capita income to biodiversity, many sustainability issues are mediated in daily discussions via indicators. Due to this familiarity with indicators perhaps, one would have to arrive on the blue planet from the moon for a sense of wonder about the many indicator initiatives, and sensitivity for their peculiarity and distinctiveness. In fact, many of the trends and developments of large-scale systems of governance would hardly be visible without indicators. Indicators allow a kind of "astronomical" vision of the human and non-human world, albeit one that we got used to in the statistical age.

However, one possibility to look at indicators with at least somewhat fresh eyes is to place indicator research in the history of modern systems of governance. My aim is to present a narrow and a wide understanding of indicators that becomes readily apparent once we turn to the role of statistics in the history of the modern state. The wider understanding of indicators suggests the importance to take into account *historical integration* as a challenge for *salient* indicator research: indicator research that helps promote the overall "indicandum" of this research, i.e. sustainable development, in democratic societies.

Talk of an "indicator syndrome" is likely to evoke different expectations. First, it may require an account of the numerous indicator initiatives at all levels of governance. An investigation how hundreds of initiatives could come about in so short a time, and perhaps also an attempt at some kind of botanization of all these indicators that would justify the talk of sustainability indicators as one field of research, rather then many, quite unrelated efforts. Second, talk of an "indicator syndrome" may be a claim about the failure of indicators to contribute to sustainable development, either in theory or in practice. Do the research

-

¹ I would like to thank the participants of the Panel 4C session. I have tried to respond to their questions and suggestions with this, revised, version of the presentation.

resources spent on developing indicators not focus too much attention on a largely technical question that however presupposes clarity about the still unresolved question of the norms behind and meaning of sustainable development? How else would measurement and monitoring be possible? Moreover, does this research reflectively take into account its inevitable influence and role in a democratic society?

In the next section, I will briefly focus on the "indicator syndrome" in the first sense. My aim is to sketch briefly a political event that has given indicator research some common grounds, and that accordingly makes talk of "an" indicator syndrome more plausible². This will introduce the indicator theme and prepare the ground for the methodological point discussed in the latter sections of this paper.

§ 2 The Indicator Syndrome

What started the recent enthusiasm for indicator research? A look at indicator initiatives suggests the Rio Earth Summit of 1992, and Agenda 21 (Hass 5), as the most important trigger. At the summit, 178 government delegations, among them 120 heads of state (and all of the G7) formulated that "Agenda 21 addresses the pressing problems of today and also aims at preparing the world for the challenges of the next century. It reflects a global consensus and political commitment at the highest level on development and environment cooperation" (Preamble Agenda 21). Agenda 21 focuses both on social and on environmental concerns, and seeks ways to deal with both in an integrated way. "We are confronted with a perpetuation of disparities between and within nations, a worsening of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well-being. However, integration of environment and development concerns and

² For one possible taxonomy see the table in the paper presented by Tom Bauler at the Berlin Conference 2004 (Bauler 5).

greater attention to them will lead to the fulfilment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future. No nation can achieve this on its own; but together we can - in a global partnership for sustainable development" (Preamble Agenda 21). Although the agenda is not a legally binding document, it did lead to the establishment of a new UN institution, the Commission on Sustainable Development, which is mandated to "monitor progress" on the implementation of Agenda 21.

How, on earth, do you monitor progress of such a complex phenomenon as the social and environmental development of the earth? Chapter 40 of Agenda 21 proposes to overcome the information deficit of decision-making with the development of indicators for sustainable development in a coherent framework and their global coordination (alongside improvements in information availability).

In 1996, the Commission on Sustainable Development published its first report on indicators of sustainable development (CSD 1996); numerous national governments and non-governmental organisations followed suit. "Putting Chapter 40 into action in the past five years, the United Nations and other international organisations, national governments, local authorities and NGO's have expended significant intellectual capital in attempts to improve the information base for future decisions and for the development of sustainability indicators" (Lawrence 180).

Looking back at Agenda 21 (and the reaffirmation of its goals at the Johannesburg Summit), a major official trigger for the development of indicators and the framework needed for developing is the global recognition of environmental and social problems. Social and environmental problems are recognised as *not* self-evident; they are said to require a deliberate effort to obtain information and to make it accessible for decision-making. This leads to the strange entities that, after Rio, have sprung up in so many places: sustainability indicators.

No doubt, the most general "indicandum" of sustainability *indicators* is "sustainable development". The overarching sustainability goal entails social, environmental, economic as well as cultural and institutional objectives. Therefore, for a goal as complex as sustainable development, there is a need to think systematically about objectives and interlinkages. Are there synergies; what are the trade-offs; what are the conflicts? If an attempt is made to systematically deal with these questions, we can speak of an indicator *framework*.

What most of these frameworks have in common, apart from the general indicandum, are their political functions. The above-mentioned call for information for decision-making is a call for tools to "monitor progress". This includes the diagnosis of developments including the comparison between countries or communities, as well as the prognostic function of early warning information and anticipation of future developments. Secondly, it is argued that indicators will allow the *operationalisation* of policies. A third key function of indicators concerns communication. Indicators and indicator frameworks are expected to increase awareness and foster acceptance of sustainable development strategies. In this function, the use of indicators is clearly not limited to policy-makers. It rather suggests what was already implicit in the "monitoring of progress" in democratic societies: indicators can play a role in holding decision-makers accountable. They may for example provide some of the information needed to hold governments accountable in elections. If, finally the indicators are to be developed and/or used in participatory process, or if they are intended for a wider public, then a fourth function of indicators can be seen in *education*. Indicators might allow the (re) orientation of practices, and they do not just provide decision-makers with information, the process of arriving at them, using and revising them is thought to be a trigger for the formulation of goals³.

Of course, there remains a host of further questions about the type of indicators. These

_

³ The functions just discussed thus find a place in the larger framework of sustainable development strategies. Compare for example the section on "analytical frameworks and research methods" in the paper on "Coordination, Challenges and Innovations in National Sustainable Development Strategies" (Volkery, Jacob, Bregha, Pintér and Swanson) presented at the conference.

are about questions such as whether the suitable indicators are to be quantitative (a number such as GDP) or qualitative (the presence of a particular species might be indicative of certain environmental conditions); whether it is better to use several indicators or an index, which aggregates information; or whether the best indicator is about a state or about a flow. But looking at the functions of the sustainability indicators that have been developed following the Rio summit one conclusion seems inevitable: indicators are tools. Multi-purpose tools to be sure – tools for monitoring, tools of communication and educational tools –, but tools nonetheless. In the next sections, I will discuss why such a conclusion, though not false, may nonetheless be misleading and narrow. To do so, let me briefly turn to political theory.

§3 The political space of appearance I

Recall the double meaning that talk of indicator syndrome is likely to evoke. In the second sense outlined above, indicators may well be accepted as tools. However, that they *are* tools is precisely the source of suspicion concerning sustainability indicators. In this second sense of syndrome, indicators may of course raise technical and administrative questions, but the real question they should raise is: tools *for what*? If sustainability objectives are still so vague, the implication seems to be that we can hardly develop tools as long as we have not arrived at a good understanding of sustainable development and its core objectives. Why bother with indicators? Would that not be succumbing to the disease: getting lost in technical questions, while failing to do the hard conceptual work needed for the clarification of goals and values? The intuition behind these questions is clear. Its core is the notion of indicators as an ultimately secondary, derivate or practical question about tools. As such, this understanding is also conducive of a particularly narrow understanding of indicators, or so I will argue in this and the next sections.

To Hannah Arendt we owe the concept of a "space of appearance". She says that

"before men began to act, a definite space had to be secured and a structure built where all subsequent actions could take place, the space being the public realm of the polis and its structure the law" (Arendt 194). Her suggestion is that, among other things, a (stable) system of law secures a space of appearance for everyday politics. It sets the rules of the game, in which opponents and friends can meet for all the questions of everyday politics. From Aristotle to John Rawls this system of law has been a powerful and fruitful focus for thinking about politics.

Consider John Rawls' theory of justice as a paradigmatic example. The heart of Rawls' theory consists of two principles of justice. A first principle according to which "each person is to have an equal right to the most extensive total system of basic liberties compatible with a similar system of liberty for all"; and a second principle according to which "social and economic inequalities are to be arranged so that they are both: a) to the greatest benefit of the least advantaged, consistent with the just savings principle, and b) attached to offices and positions open to all under conditions of fair equality of opportunity" (Rawls 266).

According to this approach, we must state the principle of justice, and once we have achieved this we may ask the further question what would allow to evaluate whether the principles are in place. The merit of the approach is a deeper understanding of the principles securing the political space of appearance, and thus of the meaning of such central terms as equality and freedom (Cohen).

No doubt, this approach raises central questions. However, it is also conducive to make indicators a simple practical, further question. Notoriously, Rawls' statements on indicators are sketchy and not very developed. The "initial definition of expectations solely by reference to such things as liberty and wealth [that is the Rawlsian indicators that are needed for the evaluation of the principles of justice] is *provisional*; it is necessary to include other kinds of primary goods and these *raise deeper questions* (Rawls 343, italics mine). However, as Martha Nussbaum points out (Nussbaum 66), we never learn how these deeper questions

are to be resolved, and we know that the little Rawls says about primary goods is problematic; not least due to the fact that he does not seem to propose indicators that are fine-grained enough to respond to the different circumstances that people find themselves in.

The Rawls' example illustrates one particularly influential way of thinking about the political space of appearance⁴. It gives primacy to the question of principles, and the question of indicators is consequently of secondary importance. Accordingly, as long as clarity about basic principles and values has not been achieved, indicator initiatives seem odd, if not misguided from this perspective. However, even if principles are of primary importance, this should not lead us to think that principles exclusively shape the political space of appearance. Let me therefore turn to a second formative influence on the political space of appearance.

§4 The political space of appearance II

Let me turn to another development influence that shapes the political space of appearance of modern systems of governance. The source of this development is the statistical movement of the 19th century. Developing out of the work of the English political arithmetician on the one hand, and German Statistik à la Conring on the other hand (Lazarsfeld), the 19th century saw an "era of statistical enthusiasm". The 1820ties and 1830ties "saw not only a shift from episodic measurement toward routine monitoring of society but also a broadening of interests in what were then called "moral statistics". Governments began to measure and analyze health, education and crime. The enthusiasm for these inquiries was stirred by a social movement, or at least a movement of intellectuals and administrators, the statistical movement of the nineteenth century, whose members founded the first statistical societies" (Starr 24). The history of moral statistics is interesting in its own right (Hacking, Gigerenzer), but it also places and provides lessons for current indicator research. In honour of one of its

⁴ For an illuminating version of this normative approach that takes sustainable development as the basic principle see Lafferty (2004).

protagonists, Adolphe Quetelet, who was trained as an astronomer, but then became one of the most important moral statisticians, let me say that the moral statisticians made *social telescopes* widely available, and in so doing trigger a development that importantly shaped the political space of appearance.

The term "social telescope" is meant to turn to the attention to the fact that the work of statisticians revealed social trends and large-scale developments in an innovative way that immediately drew the attention of the public: a social milky way became "visible" and with it a whole new set of possibilities for thinking about society and its development (Ewald). The preoccupation with measures for unemployment or economic growth in the 20th century have a predecessors in the 19th century preoccupation with suicide rates and crime (Quetelet, Durkheim) or family income (Le Play). In this light, it is tempting to think of sustainability indicator research as a new wave of moral statistics. However, as we will see it is important to to take into account the specific context of this wave of moral statistics.

"Probability and statistics have transformed explanation and reasoning in the sciences, and views of contingency and risk in the wide world beyond. These transformations are too varied and vast to sum into a coherent picture of the world; what they constitute is more a new Lebensgefühl than a new Weltanschauung. Yet we who have been born into the empire of chance hardly notice its dominion over us; over the way we parse our world, make up our minds, argue our points, and judge our fellows. Our statistical way of life is too much a way of life to catch the eye" Gigerenzer, 289). Let me therefore draw attention to two implications of statistics for the political space of appearance.

Just like principles, indicators can create a stable commitment, and create a space in which political action and speech can take place. Consider a well-known indicator: GDP. A widely used and accepted indicator is a cognitive commitment. The way it is measured by and large defines the economic (social or environmental) phenomenon in the public sphere(s); it provides a common reference point for political speeches and action (Starr 53). As critics of

accepted indicators such as GDP or employment know, the power of this cognitive commitment is considerable, and effective criticism very difficult. This is all the more frustrating as an accepted indicator need in no way be related in any obvious way to the constitutional commitments of a system of governance, for example a commitment to ensure basic political and social rights, now and in the long-run.

I have introduced GDP as an "indicator", but what is the "indicandum"? GDP is a measure for economic activity, and any normative employment of "indicating" would therefore seem opaque, if not obscure. One reason why normative indicator talk nonetheless functions smoothly, is due to the fact that statistics are not only cognitive but also normative commitments, and as such "reveal" positive or negative trends: a "good" development of the employment statistic or the "normal" rate of economic growth and the economic welfare it is assumed to "indicate" today, just as in the 19th century the suicide rate and the propensity to crime it supposedly indicates. Discussing the US Current Population Survey, Christopher Jencks writes that "the initial purpose of the Current Population Survey was to implement the Employment Act of 1946 by determining how many people were looking for work and unable to find it. The discovery that only 4% of those who wanted a job had not found one was therefore good news in 1948. But it did not remain news for long. By 1949 the "news" was that the unemployment rate had risen from 4 to 6 percent. If the initial figure would have been 6%, it would probably have been greeted with the same huzzahs as 4 percent . . . but with 4 percent as a baseline, 6 percent was clearly a turn for the worse" (Jencks 125).

Indicators may have a powerful and lasting influence on the political space of appearance, and disclose what the problems and appropriate developments are. However, in spite of their cognitive and normative power, the relation between indicators and constitutional principles will nonetheless frequently remain opaque and may sometimes even be in conflict. Yet, the power of indicators is so great that it is usually not even necessary to provide reasons for the normative role of "indicators", even though the latter are only

measures in the first place (The Lisbon strategy (EC) provides a particularly striking example in the way it takes economic growth as indicator/objective simply for granted).

§5 Indicators and being-in-the-world

In light of the discussion of indicators as cognitive and normative commitments, the metaphor of "social telescopes" needs to be qualified. To be sure, it is important to keep in mind how powerful statistics can impact the political space of appearance. Yet, the "telescope" nonetheless suggests the notion of indicators *as* tools: just as we might look into the sky with our eyes and *then* decide to use a telescope to be able to better observe something, we might seem to use indicators to better "see" a particular social trend. However, this way of thinking leaves out the possibility, where "seeing" starts "through" the telescope. Let me push this usually neglected dimension of indicators a bit further with the help of a philosophical discussion of indicators and their place in agency.

To indicate is to point out, to state or express and thus to be a sign for something. From the perspective of our being in the world, understood as our involvement in a nexus of tools and practices, Martin Heidegger points out that signs are in the first place a kind of equipment: something that we encounter and deal with in our everyday actions.

What distinguishes signs from other equipment is for Heidegger their role in *orienting* actions. If the traffic light is red, you stop your car; when it turns green, you drive on. Or, to leave the urban surrounding, if the wind blows from the land, then an experienced sailor simply knows how to take this sign. "Signs of the kind we have described let what is ready-to-hand be encountered; more precisely, they let some context of it become accessible in such a

way that our concernful dealings take on an orientation and hold it secure" (Heidegger 79⁵). Signs can serve this orienting function if they are conspicuous. Whereas the tools in purposive activities are distinguished by their unobtrusiveness, and non-conspicuousness – an instrument used in practical activity tends to become "invisible" in use - signs do rise into the circumspection of everyday involvement. Not in the sense that we usually stop to look at the sign, but in the sense that the sign orients action.

Interestingly, signs also raise into circumspection the structure of activities that they help orient⁶. Put differently, signs reveal something about the world of the practical actions and relationships of being-in-the-world. The traffic lights reveal something about the world of traffic participants, as does the south-wind about the world of fishermen. They do so, because there is never only one tool. Tools only become available in a nexus of other tools and practices. It follows that signs as a special kind of equipment only become available as part of an equipmental nexus; and as part of this nexus they may help reveal something about this world.

This suggests quite a different take on indicators as something that is already there as part of the world. Precisely for this reason, we might never "consciously" think about them. Even if we take them into account, say when the traffic light does not turn red, this does not mean that we think of them *as* a sign. We might just stare in anger. Indicators in this sense are conspicuous equipment that is action-orienting, and in so doing, reveals something about the world in which these actions take place. This wider, not exclusively "indicators-as-a-tool-for-deliberation" understanding of indicators elucidates the enormous power the economic and social indicators can play in shaping the political space of appearance - but what is the

_

⁵ "Zeichen . . . lassen Zuhandenes begegnen, genauer, einen Zusammenhang desselben so zugänglich werden, daß der besorgende Umgang sich eine Orientierung gibt und sichert"

⁶ "Zeichen ist . . .ein Zeug, das ein Zeugganzes ausdrücklich in die Umsicht hebt, so daß sich in eins damit die Weltmäßigkeit des Zuhandenen meldet." (Heidegger, "SZ" 80: "A sign . . . is an item of equipment which explicitly raises a totality of equipment into our circumspection so that together with it the worldly character of the ready-to-hand announces itself.") I explore this aspect in much more detail in "Sustainability, governance and legitimacy – the ontological option" (Ziegler).

§ 6 Agenda 21 and Agenda 20

In a classic work, Jürgen Habermas describes the ideal type of the public sphere(s) in the developing modern states in terms of the discourse of materially independent, educated citizens that are able to follow the force of the better argument (Habermas 1990, 1992). He argues that societies that have developed with this category as a normative ideal have to meet severe challenges in large-scale democracies. Historically, the extension of rights and with it a growth in number of citizens, who are neither materially independent, nor therefore necessarily in a position to participate in the public sphere(s) in a critical way, makes it necessary to rethink the possibility of the public sphere(s). Second, the development of technology, most notably of mass media allows private interests to exert a strong, if not dominating influence on the public sphere(s). Finally, issues of scale in large-scale democracy add further challenges. What would be the place of indicators in this context?

No doubt, the category of the public has kept its normative attraction in democratic systems of governance, and theorizing about them. A prominent example is the public and its "sense of justice" that John Rawls expects in a just society. The Rawlsian public is familiar with the basic principles of justice and ensures that the political space of appearance remains stable in accordance with the principles of justice. From this perspective, indicators would suggest themselves as one way among others to ensure the possibility of a public that is able to follow and appreciate general developments and that consequently can hold decision-makers *accountable* in terms of promised policies, but ultimately also in terms of the fit between governance with constitutional essentials. Well-crafted indicator frameworks make manifest developments in large-scale, complex societies. They can contribute to a fine-

grained political perception in large-scale societies, improve the possibilities of public discourses, and thereby also the accountability of the system of governance.

As the most important official trigger for the recent sustainability indicator research is Agenda 21, we could speak of the *Agenda 21 approach* to indicators. It is characterised by an attempt of scientists/experts to come up with tools meant to inform decision-makers and empower the *public* (this does not exclude the participation of stakeholders in the process). As such, indicator research has an important place in sustainable development strategies, and may contribute to juster, more fine-grained visions.

However, not all indicators follow the schema tool-provided-by-a-sustainabilityexpert-to-inform-decisions-makers/public. In the statistical age, indicators are not just novel tools for deliberation and decision-making, but also already action-orienting and already world-disclosing. They exercise cognitive and normative power and are at the "disposal" in a way that is much less deliberate than the notion of tools for decision-makers or a democratic public suggests. As indicators need not always be devised for a public, or made available – but rather are already there, we could speak of the "community aspect" of indicators. Indicators may *already* be action-orienting in a social world. (I have not chosen the term "community" to denote a "harmonious whole, but in *contrast* to "public", so as to emphasize that factually indicators may already be involved in actions). Strikingly, in terms of electoral accountability, empirical research in the US suggests that the, statistically mediated, perception of the national economy as a whole is more important for the citizens vote than changes in personal economic conditions (Prewitt 263). This underlines the power of established indicators, and thus to the need to understand which indicators are in fact already guiding a public. In contrast to Agenda 21, "Agenda 20" accordingly denotes the agenda that are already pursued by people acting in accordance with certain indicators; accepting them as the definition of social phenomena and taking for granted their normative-drive.

§7 Historical integration

Let me arrive at the conclusion of this methodological contribution to the 2004 Berlin Conference. The problem of "integration" that I have attempted to work out is of a particular, easily overlooked nature. No doubt, the term "integration" itself permits various interpretations depending on how the question of hierarchy between different parts is understood; whether it is understood as "summing" up and adding on of parts or the transformative creation of something new; and finally it depends on the degree of order and purpose that integration is said to require (Persson 2004). In this respect, the question addressed here assumes the priority of sustainable development, but suggests that taking into account a wider understanding of indicators may not just "add" a further dimension, but also have implications for the way indicator research is understood and articulated. "Historical integration" as far as indicators are concerned is a purposive methodological task. It holds the promise of increasing the *saliency* of indicator research in modern systems of governance.

There are at least two important influences on the political space of appearance of modern systems of governance: laws and principles on the one hand, indicators on the other hand. The latter can have the formative influence of cognitive and normative commitments; they powerfully contribute to and may even define the public perception of social, economic and environmental issues; and they imply influential commitments concerning the "normal" or expected rate of the indicator. For this reason, it can be misleading to think of indicators simply as "tools": politically, indicators may reveal and set up what are the problems, rather than be only tools for the solution of independently given problems.

No doubt, principles and indicators can be related whenever principles provide the objectives that lead to the development of indicators. Ideally, the Agenda 21 approach my stand for the development of indicators based on the principle of sustainable development that would consequently allow the use of indicators for the monitoring, operationalisation, and

communication of sustainable development. This important way of thinking stands in a well-established tradition of political thought. John Rawls' *Theory of Justice* is perhaps the paradigmatic example for this approach in the 20th century. For sustainable development, William Lafferty has presented an approach giving priority to normative principles or "constitutive" essentials at the Berlin conference (Lafferty).

However, there is no guarantee that only this type of indicator shapes the political space of appearance. There are indicators that are irrelevant and/or opaque with respect to normative principle, or worse: in conflict with them. As cognitive and normative commitments they set "agenda" that already orient action, and from the wider understanding of indicators we know that this "Agenda 20" need not be comprehensively formulated anywhere and that it need not be internally consistent and unitary ("agenda" not "agendum").

The term "historical integration" is the suggestion explicitly to take into account Agenda 20 as a challenge for indicator research. It suggests that there is a need to both develop indicators from principles *and* to ask how the proposed indicators are in accordance or conflict with indicators that already orient action in the relevant domain of policy. To my knowledge, there is no indicator framework that singles out the indicators that already are action-orienting, and that clarifies how the proposed indicators stand with respect to indicators that already guide action.

The promise of considering this challenge is greater *saliency*. Concerning indicators, saliency - proposed by Clark (2002) as an attribute of influential assessments – is about the question whether proposed indicators are perceived as relevant from the perspective of those to whom the indicators are communicated. In the case of indicators, this raises the question about the indicators and objective that already orient the relevant actors. No doubt, investigating this question makes indicator research even more demanding. However, it also considerably improves the chance of indicators to engage the relevant actors.

An example for the difficulty and importance of this kind of work is the Index of

Sustainable Economic Welfare (Daly and Cobb). Prima facie, it is the typical example of a new indicator proposed by scientists working in the field of sustainability research. However, the work of Herman Daly and John Cobb is especially salient due to pains the authors take in engaging their proposed indicator with one that already orients action: GDP. Their discussion is immediately salient in a way that the simple proposal of a novel indicator for sustainable economic welfare could not have been.

One important function of sustainability indicators in democratic systems of governance concerns accountability. In the classical case, indicators may help the electorate to hold a government accountable by making the governmental performance more transparent. Moreover, they may also have a role for assessing systems of governance in the long-run (Prewitt 264). Sustainability indicators hold the promise to help hold governments accountable in terms of their ability to meet sustainability objectives. To do so, they must be perceived as salient by the electorate, and to achieve this task (rather than simply producing another indicator framework, however interesting from a scientific point of view), "historical integration" plays an important role.

But let me conclude this paper with a critical question. Is "historical integration" not a recipe for dilution? Does the suggestion that indicator research should also take into account and engage with indicators (and objectives) that already orient the relevant actors not systematically lead to an assimilation with "business as usual", even though the latter is a major reason why sustainable development has become a serious challenge in industrial societies in the first place?

"Historical" integration does not require "assimilation". In the first place, it is a concern with the methodological comprehensiveness of integration, triggered by a concern for the saliency of this research for questions of accountability in democratic systems of governance. Assimilation and dilution can be avoided as long as proposed sustainability indicators are in fact developed from principles, rather than being adopted because they

happen to be available. If indicators are developed from sustainability objectives, there is a possibility of constructively engaging with already action-orienting indicators. For the latter are frequently not at all related to normative principles in any transparent way. Historical integration can create a forum where the Agenda 21 approach addresses the already action-guiding indicators/objectives of Agenda 20; the gain in saliency may foster the interest of communities and promote the possibility of a democratic public that will hold systems of governance accountable.

References

Arendt, Hannah. The Human Condition. Chicago: Chicago University Press, 1958/1998.

Bauler, Tom. "Policy relevance of indicators for sustainable development". Berlin Conference on the Human Dimension of Global Environmental Change, Berlin 3-4 December 2004.

Clark, W.; Mitchell R.; Cash D.; Alocock F. "Information as Influence: How institutions mediate the impact of scientific assessments on global environmental affairs." Faculty Research Working Paper, John F. Kennedy School for Government, Harvard University, November 2002.

Cohen, G.A. "On the Currency of Egalitarian Justice". Ethics 99/4: 906-44.

Compendium: A global directory to indicator initiatives, International Institute for Sustainable Development, Winnipeg 2004.

http://www.iisd.org/measure/compendium/searchinitiatives.aspx:>

Hass, Julie L., Brunvoll, Frode; Hoie, Henning. "Overview of Sustainable Development Indicators used by national and international agencies". OECD STATISTICS WORKING PAPER 2002/2

Herman E. Daly and John B.Cobb. For the Common Good. Beacon Press, Boston 1994

European Commission. "The Lisbon European Council – an Agenda of economic and social renewal for Europe". DOC/00/7 Brussels, 28.02.2000

Ewald, François. L'Etat providence. Paris: Editions Grasset & Fasquelle, 1986.

Gigerenzer, Gerd; Swijtnik, Zeno; Porter, Theodore; Daston, Lorraine; Beatty, John and Krüger, Lorenz. <u>The Empire of Chance</u>. Cambridge: Cambridge University Press 1989. QA 273 E57 1989

Habermas, Jürgen. <u>Strukturwandel der Öffentlichkeit</u>. Suhrkamp 1990 re-editon with a new preface

Hacking, Ian. The Taming of Chance. Cambdrige: Cambridge University Press, 1990.

Jencks, Christopher. "<u>The Politics of Income Measurement</u>". <u>The Politics of Numbers</u>. Alonso, William and Starr, Paul, eds. New York: Russell Sage Foundation, 1987. 7-57

Lawrence, Gary. "Indicators for Sustainable Development". Eds. Bigg, Tom and Dodds, Felix (eds). The way forward: Beyond Agenda 21. London: Earthscan, 1997.

Heidegger, Martin. Sein und Zeit. Tübingen: Niemayer 1967

Lazarsfeld, Paul F. "Notes on the History of Quantification in Sociology – Trends, Sources, and Problems. Quantification: A History of the Meaning of Measurement in the Natural and Social Sciences. Woolf, Harry, ed. Indianapolis: Bobbs-Merrill, 1961. 128-146

Lafferty, William. "Government Initiatives for Environmental Policy Integration: A further specification of benchmarks and normative standards". Berlin Conference on the Human Dimension of Global Environmental Change, Berlin 3-4 December 2004.

Nussbaum, Martha. <u>Women and human development: the capabilities approach</u>. Cambridge: Cambridge University Press, 2000.

Persson, Asa. "Environmental Policy Integration. An Introduction." PINTS – Policy Integration for Sustainability Background Paper. Stockholm Environment Institute, June 2004.

Prewitt, Kenneth. "Public Statistics and Democratic Politics" The Politics of Numbers. Alonso, William and Starr, Paul, eds. New York: Russell Sage Foundation, 1987. 261-274

Rawls, John. A Theory of Justice. Oxfored: Oxford University Press, Revised Edition 1999.

Starr, Paul. "The Sociology of Statistics". <u>The Politics of Numbers</u>. Alonso, William and Starr, Paul, eds. New York: Russell Sage Foundation, 1987. 7-57

Volkery, Alex; Jacob, Klaus; Bregha, Francois; Pintér, László and Swanson, Darren. "Coordination, Challenges and Innovations in National Sustainable Development Strategies". Berlin Conference on the Human Dimension of Global Environmental Change, Berlin 3-4 December 2004.

Ziegler, Rafael. "Sustainability, governance and legitimacy – the ontological option." GoSD Working Paper No.4 (forthcoming).