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Research in Diverse Social Contexts

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I begin my presentation with a startling but brief quote from a *World Bank* Report on *Knowledge for Development*. The *World Bank* (1999:1) which is reinventing itself as the Knowledge Bank notes: "Knowledge is like light. Weightless and intangible, it can easily travel the world, enlightening the lives of people everywhere. Yet billions of people still live in the darkness of poverty – unnecessarily."

As the quote from the World Bank Report suggests there are apparently huge gaps, imbalances and barriers to the actual production and dissemination of knowledge around the world, perhaps the sharpness of the divide may have increased in the last decades but these disparities appear to constitute "problems", thus, the uneven distribution of knowledge across societies may be overcome in principle. Yet, the project of global knowledge is if we follow the World Bank far from a human achievement. The great challenge is to determine whether the implied imbalance may be healed not only in theory but in practice, at some future point.

Indeed, for much of the 20th century, research activity was concentrated in a small set of countries. Since the last decade, science and innovation have become increasingly and genuinely global. Although more science is now being done by more people in more places, forcing policymakers to expand their horizons, the distribution of growth remains quite uneven.

Nor can we assume any longer that the potential benefits of research emerge unproblematically. The development of knowledge politics in many countries, that is, of efforts to regulate and govern new knowledge and technical artifacts is testimony to the emergent trend to a changing public perception of the virtues of research.

On the other hand, there is a growing number of prominent voices in the *science community* that skeptically comment in light of the increasing usage of contemporary, especially natural scientific knowledge, not only by governments but also as a tool of politics, about a massive increase in the *inability* of large segments of citizens to take part in democratic decision-making. Ordinary citizens are robbed of the ability [1] to rationally enter into discourse about modern science and technology and its social consequences. These concerns raise the question whether the practices of contemporary scientific research in diverse social contexts allows for the possibility of reconciling expertise and democracy.

My brief presentation will focus on a number of key terms in a discussion of research in diverse social contexts (cf. also Ozolina et al., 2009). Foremost among these terms will be knowledge, especially the notion of "global knowledge", the issue of governance, equity or the social and cultural cleavages both within and across societies, ethics and last but not least globalization. I will advance my observation in a number of steps: First, I will offer a brief definition of knowledge and *enabling* knowledge. Second, I refer to research contexts and divides. In a third section, I discuss globalization and research divides. This will be followed by the question "Globalizing Knowledge?" And, in a concluding section I refer to research in globalizing societies.

[1] Aside from the *ability* to enter a field of discourse, there is also the question of the *desire* to enter a field of discourse in an active manner. On a psychological plane, ability and desire likely interact and desire and ability do vary from person to person as well as from issue to issue (cf. Mulder, 1971).

Knowledge

I would like to characterize knowledge as a generalized *capacity to act* and as a model *for* reality.[2] Knowledge creates, sustains and changes existential conditions. Social statistics emerging out of research efforts, for example, are not merely mirrors of societal reality; they problematize social reality by showing that it could be otherwise, suggesting and representing capacities for action.

Additional knowledge enlarges our capacity to act; thus it is unavoidable that knowledge has *political* attributes. Knowledge as a capacity to act contributes to what is constitutive for politics: to change or to preserve and perpetuate. Not everybody knows everything; therefore capacities to act are stratified and not equally distributed throughout society.

My definition of the term "knowledge" is indebted to Francis Bacon's famous observation that *knowledge is power* -- a somewhat misleading translation of Bacon's Latin phrase: *scientia est potentia*. Bacon suggests that knowledge derives its utility from its capacity to set something in motion.

Knowledge, as a generalized capacity for action, acquires an "active" role in the course of social action only under circumstances where such action does not follow purely stereotypical patterns, or is strictly regulated in some other fashion. Knowledge assumes significance under conditions where social action is, for whatever reasons, based on a certain degree of freedom in the courses of action that can be chosen. The circumstance of action I have in mind may also be

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[2] The German term describing knowledge as a generalized capacity to act would be Handlungs*vermögen*. The verb *vermögen* signals "to be able to do," while the noun *Vermögen*, in this context, is best translated as "capacity" (rather than "fortune"). Georg Simmel ([1907]1989:276), in his discussion of money as a generalized code, uses the term *Vermögen* to describe the fact that money is more than merely a medium of exchange, and that his definition of money thereby transcends a mere functional understanding of its social capacities.

described as the capacity of actors to alter, transform or change a specific reality (*Gestaltungsspielraum*).

The capacity to alter and affect reality (enabling knowledge) is not symmetrical with the capacity to act (knowledge). Knowledge may be present but for a lack of the capacity to transform, knowledge cannot be employed because actors may not have the necessary authority, power or material resources to change reality.

Enabling Knowledge

Knowledgeability or *enabling knowledge* refers to capacities to act that are useful in and coupled to specific social contexts (similar to Mode 2 Knowledge). Not all knowledge is enabling knowledge. For knowledge to constitute enabling knowledge it must resonate with the specific contingencies of social situations. Enabling knowledge must be tied to those characteristics and conditions of specific social contexts that are amenable or *open to action*.

There are basically two models that describe in rather distinctive ways how enabling knowledge emerges from research contexts:

The first and much acclaimed model is based on the assumption that there tends to be a steep gradient of knowledge between science and society. It is best described as the *model of instrumentality*. Science speaks to society and does so not only with considerable authority but also with significant success while society has little if any opportunity to talk back.[3]

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[3] The alleged dominance of scientific knowledge in society and the extensive respect granted to scientific knowledge to the exclusion of other forms of knowledge provoked Paul Feyerabend ([1974] 2006) and led him to ask, how can society be defended against science? His answer is with the help of an education system that is intellectually more inclusive.

The alternative approach to the social pathways especially of social science knowledge (but not only social science knowledge) is the *capacity model*. Research under the auspices of the capacity models is closely linked to the ability of actors in practical circumstances to manipulate or manage unique, context specific sets of conditions of action.

The capacity model extends to the potential practical influence of *ideas and meaning* on society and its actors generated especially by the social sciences and the humanities. In this sense, the social science and the humanities primarily operate as meaning producers. The social sciences are last but not least--borrowing a term from the historian James Harvey Robinson (1923:16) -- "mind-makers". [4]

Research contexts and divides

> The thought processes of science constitute an unreal world of artificial abstractions, which with their lean hands seek to capture the blood and sap of real life without ever being able to grasp it.
>
> Max Weber ([1919] 1989:15)

[4] Robinson (1923:16-17) refers to a longer list of occupations and professions serving as mind-makers in modern society: "Mind-seekers are the questioners (of the taken-for-granted or the commonplace) and seers. We classify them roughly as poets, religious leaders, moralists, story-tellers, philosophers, theologians, artists, scientists, inventors." But Robinson (1923:17) also raises the significant follow-up question "what determines the *success* of a new idea; what establishes its currency and gives it social significance by securing its victory over ignorance and indifference or older rival and conflicting beliefs?". In this context, he stresses that the "*truth* of a new idea proposed for acceptance plays an altogether secondary role" (Robinson, 1923:20). Robinson's question about the conditions for the success of a new idea must of course be extended to the question of why new ideas are incapable to displace the commonplace and the taken-for-granted or what "social labor" established ideas exactly accomplish and under what circumstances they are able to do so?

Max Weber's Munich lecture on "Science as a vocation" given in September 1919, discusses some of the fundamental questions and misgivings about the role of scientific knowledge in modern society, especially the emerging distance, even alienation from science among society's younger generation. Almost a century later, the same, even more general concerns as I have mentioned are echoed by prominent members of today's scientific community.

At the global level, the most visible challenge to research efforts is that of global equity. Reference to the notion that 'research and science divides' in the context of globalization and global governance seems to be a strange observation, given long held assumptions that scientific advances have the effect of bridging the social, cultural and economic gap between rich and poor, developed and developing worlds. The reality, of course, is that the gap has grown wider over the years.

The divergence between developed and developing worlds has a number of causes, related to the complexity of science, the economic and military benefits of research as well as the difficulties of efforts to encourage the global governance of science. One route may be a greater emphasis on *collaborative research* across societies. Collaboration may have enormous potential benefits but could be slowed and interrupted by an overemphasis on the protection of individual property rights. Collaboration should also extend to stakeholders, civil society organizations and transnational institutions.

Globalizing Knowledge?

> We have learned to understand what is meant by the universality of science: not that science is valid under *all* conditions, but that it is valid under definite conditions.
>
> Gernot Böhme (1992:59)

The concept of global or better globalizing knowledge as used here does not refer to an already existing worldwide community of knowledge but to the social and intellectual processes and obstacles knowledge has to master in order to become global in scope and overcome the unbalanced distribution across societies.

When we think of global knowledge, we trend to think of the global dissemination of modern technical and scientific knowledge mainly produced in the West and not the global presence of traditional or indigenous forms of knowledge. Moreover, it is hardly necessary to point out that the assumption that global knowledge is virtuous is rarely questioned.

Nonetheless, among complicated questions that form part of an inquiry into global knowledge would be: How dependent is the world-wide dissemination of knowledge systems on social structure (for example, "global" job markets) or "issues" that are considered to have a world-wide impact and "force" the global dissemination of associated forms of knowledge (for example, environmental, security or health issues)? Does knowledge change as it travels? Is an equal or uniform distribution of knowledge even possible in modern societies? Is knowledge the intellectual mark of an age of globalizing knowledge societies? If knowledge becomes global what are its benefits or drawbacks?

The approach to and/or even the implementation of global or globalizing worlds of knowledge have hitherto been realized above all in normative and

idealistic speculations, by decree, as a thought experiment or as a business plan. Similar premises about globalizing knowledge may be found in the economic and/or management literature. Reflections on the development of a global world of knowledge without borders may be found not only in discussions of the extension of a global knowledge-based economy (for instance, in the sense of global production networks), but in the field of the so-called knowledge management, which ever more frequently deals with global knowledge agendas, the institutionalization of global knowledge experts and global knowledge management strategies.

Rather than focus on those social, cultural and economic conditions and processes which may facilitate globalizing words of knowledge, in a cautionary note I will list two major constraints:

(1) I refer, first, to intrasocial and intersocial limits, for example a society's legal practices, the cultural traditions of a country that resist any easy assimilation of new ideas, its inherent inequalities (forms of division of cognitive labor; incentives for asymmetrical access to knowledge, such as in order to defend the power of the market), the boundaries between social organizations (companies, laboratories) and the trade barriers between societies and

(2) constraints that may be directly linked to certain attributes of knowledge itself.

Only the latter constraint is in need of further explanation: *Knowledge protects itself*: the thesis of self-protecting knowledge has a demand and a supply side;[5] Knowledge is extremely difficult to steal, or hardly anyone has an interest

[5] The thesis of the possibly self-protecting characteristics of modern knowledge does not primarily concern itself with certain inherent characteristics of knowledge that make it something like a private asset (this may have been particularly the case in earlier centuries, when scientific knowledge was already protected from laymen by being formulated in one of the least accessible

in stealing knowledge, since one profits from knowledge only with great difficulty. On the supply side self-protecting knowledge refers to the requirement that the use of knowledge be closely tied to the ability to mobilize cognitive abilities which are both rare and difficult to articulate. The difficulty of using knowledge (secondarily) or the difficulties of transporting it depend on, for example, the manner in which knowledge is organized.[6] At the same time, the self-protection of knowledge signals the fact that knowledge is anchored in a particular knowledge infrastructure, such as the ability to learn how to learn, and thus can neither circulate freely nor be easily reconstituted.[7]

The self-protecting qualities of knowledge on the *demand* side might be processes associated with characteristics or with the application of knowledge, as for example the high depreciation of knowledge. The latter means that acquired knowledge quickly loses its value relative to the costs of acquisition and future profits. Moreover, in the context of certain forms of knowledge it can be true that the rights of ownership associated with that knowledge, similarly to the case of a

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languages and was thus, so to speak, automatically protected); rather, it refers to context-dependent institutional attributes that hinder a simple dissemination of knowledge. Among these attributes in modern society is access to the educational system and its intellectual capital.

[6] The forms into which knowledge is organized help to protect knowledge: As Kitch (1980: 712), for example, underscores, "managers can avoid increasing the ease with which information can be transmitted by resisting the temptation to assemble the information in organized written form."

[7] The concept of "sticky information," coined by Eric von Hippel (1991, 1994), refers to the same fact. Implicit stocks of knowledge which is difficult to transfer (*tacit knowledge*), cognitive abilities and experiences reduce the mobility of knowledge, facilitate its control and reduce the necessity of comprehensive legal norms to protect these forms of knowledge (cf. also Polanyi, 1958, 1967; Cowan, David and Forey, 1999:6-7). Antonelli (1999:244) refers in turn to structural or cultural processes and argues that it is particularly *technical* knowledge that is context-dependent; for technical knowledge "tends to be localized in well-defined technical, institutional, regional and industrial situations. It is specific to each industry, region and firm and consequently costly to use elsewhere. The localized character of technical knowledge increases its appropriability but reduces its spontaneous circulation in the economic system."

famous painting or a very rare book such as the Gutenberg Bible, are easily attributable by others and are therefore primarily of value to the owner. One can accelerate the rate of "wear and tear" on knowledge and information by behaving according to that information. If one follows the advice to buy a certain stock, for example, that does not mean that afterward it will necessarily be more valuable. The high degree of wear and tear experienced by information implies that "by the time someone steals the information it is worthless which in turn means there is no incentive to steal it" (Kitch, 1980:714).

Outlook: Research in globalizing societies

> A democratic system in which knowledge is made the focus of continuing public concern is the only basis, under modern conditions, for government which is both effective and responsible.
>
> Sanford A. Lakoff, 1971:12

The world is an immensely stratified figuration. It has multiple social, cultural, economic and political cleavages. These are observations that conform with reality as we experience it. But it also is a reality that is often forgotten in the search for the main engine that drives social change in modern societies. The population of the world is continues to grow. In most societies, nationalism is still an influential cultural and economic point of reference. The majority of the so-called global corporations or firms that are present in many countries are still linked with justification to a particular home base. [8] Multinational corporations

[8] *The Economist* (February 6-12, 1993, p. 69) reported that in 1991 only "2% of the board members of big American companies were foreigners. In Japanese companies, foreign directors are as rare as British sumo wrestlers."

continue to carry out the vast majority of their research and development efforts right at home. At the same time, many of the rapid changes, chances and risks around the world are a function of an increasingly powerful science system. For example, especially biomedicine, asks larger and larger ethical questions, testing a society's capacity to realize its benefits while minimizing its risks.

Technically the world may be much closer connected as a result of satellite television and the Internet but this does not extend to the cultural, social and political realities. We see each other much more often, faster and better. But this does not mean that we understand each other better and that our capacities to learn from each other have much improved. On the contrary, the technical integration and connectedness, the worldwide migration and mass tourism produce and sustain envy, misunderstandings and often generate much more stress and anxieties than anything else. Global communication facilities and access to the Internet have not really transformed this world into a more civilized place. Some of the risks of the globalization process may be found in a reified, alienated understanding of the globalization process itself: actors, corporate and political systems primarily conceive of themselves as objects of the globalization process. What is equally true is that the globalization process cannot simply be reversed by decree or the will of groups and institutions.

The chances of the globalization process therefore have to be seen to rest in the emerging capacities to act which the globalization process affords and to deploy and implement these capacities in a constructive fashion. Even the critics of globalization must be interested in knowing or assuming that nothing has been decided as yet and that the history of globalization is still open.

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