



Knowledge and Ethics in a Democratic Society

Bernt Gustavsson

Professor in Education and Democracy

Örebro University

Sweden

Quotation information

GUSTAVSSON, Bernt; (2008), "Knowledge and Ethics in a Democratic Society". *Proceedings of the 4th International Barcelona Conference on Higher Education, Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?*. Barcelona: GUNI. Available at <http://www.guni-rmies.net>.

Abstract

Within the discussion and research on the nature of knowledge lies the highly debated issue of the relationship between ethics and scientific knowledge. In this paper I try to problematize this relationship with the help of the Aristotelian concept of knowledge and ethics. This concept makes the distinction between scientific knowledge (episteme), productive knowledge (techne), and practical wisdom (phronesis). (Aristotle, *nicomachean ethics*, chapter 6, (2002) Oxford university press, introduction by Sarah Baoadie.)

Episteme is mainly defined in a strict scientific sense, as the description and explanation of scientific truths and are therefore constant and cannot be otherwise. Mathematics is the ideal science. Techne is defined as practical-productive knowledge, creativity, production or handicrafts. Phronesis is defined as "to know how to act in the best way in concrete, specific situations". (Nussbaum, Martha (1993), *Passions and perceptions*, Cambridge, Cambridge university press). These three forms of knowledge can also be described as different virtues (areté), which can be defined as the skills we develop in our various fields of work. In science we develop

Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?

GUNI - Global University Network for Innovation – www.guni-rmies.net

episteme, in handicraft techne and in ethics and politics we develop phronesis.

In relation to the problem we have presented we can say here that in every activity in which we are involved we have to apply all three forms of virtues or forms of knowledge. I have personally studied a number of different forms of education and found these three forms to be present in different combinations and in relation to what is most beneficial to that specific education or activity, such as shipbuilding, vocational teaching or scientific study. (Gustavsson, Bernt, (2003) Knowledge in practice, published in Swedish).

Therefore, the question of which branch of knowledge should be applied in which society can be answered as follows: in every form of education, community, workplace or context, we have to apply the most beneficial forms of knowledge in relation to that specific society or context.

Today we live in a situation where we can distance ourselves from our own context or society and learn from others. In a specific scientific field or a specific university, or a specific nation; in specific parts of the world, we find different perspectives available. We are always contextualised in some of them and have our preferences, however, at the same time we have the possibility to go beyond the already acquainted and meet what is new and foreign to us. In today's globalised society this is an expanding possibility.

If we look closer at the meaning of phronesis we can find that practical judgement developed in a hermeneutic tradition means how we make interpretations of reality from: a specific situation, the particular context or situation we are in, meet the general or the universal, what is open for different interpretations. This is relativistic in the first step, when we allow different interpretations to speak. The next step is the critical stage: when we have to debate, often in conflict, between the most valid interpretation. (Ricoeur, Paul, (1983), Time and Narrative, Volume III. Chicago, Chicago university press.)

The general problem here can be expressed in terms of the relation between the particular and the universal. Interpreted as an ethical problem, related to the problem of knowledge, we have here a core problem of our time. In ethical terms we can, from an Aristotelian view, say that ethics and right action is contextualised in our

Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?

GUNI - Global University Network for Innovation – www.guni-rmies.net

own community. On the universal side, aspects such as human rights, criteria for social justice, or even some universal human values, such as the right to develop our capabilities, have to be taken into account. (Nussbaum, Martha (2000), *Woman and human development: the capabilities approach*, Cambridge university press).

If we look at the advanced discussion about democracy in contemporary globalised society today, we can find defenders either of the particular (in terms of communities, identities, cultures), or of the universal (rights, justice, capabilities). Some philosophers and researchers try to find relationships in these two standpoints in the hope of bridging the existing divide. For the question of ethics and democracy we can follow Ricoeur when he, in his ethics formulates it briefly: "a good life, with and for others, in just institutions". A good life: the nebulous of our dreams and ideals, in friendship with others, in just institutions. This is an area of ethics which combines and relates the difference and the general, the particular and the universal. (Ricoeur, Paul, (1992), *Oneself as another*, Chicago university press).

In this sense we can regard science in the universal sense, together with all the differences we have to live with, in all its richness and fruitfulness.

If we put forward the question of what we actually mean by knowledge in a knowledge-based society, we can, from this reasoning, say that a democratic society based on knowledge has to be built on the reciprocal recognition and respect for different forms of knowledge, used in different forms of activities and education. The main criteria for answering the question; which knowledge in which society has to be: what is most fruitful for this specific society or context? (Gustavsson, Bernt, (2000) *Philosophy of knowledge*, published in Swedish and Danish).

The ethics of this conclusion is to recognise every context from its own habits, customs, traditions, or culture. But, in order to develop the specific context it has to develop itself in dialogue and in a fruitful relation to the other. Just as no human being is an island, neither is any society in a globalised world. The main ambition in developing a society is to give the citizens the opportunity to build their own capabilities from their own circumstances.

Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?

GUNI - Global University Network for Innovation – www.guni-rmies.net

In this article I discuss the relation between knowledge, ethics and democracy. Knowledge from a wider, Aristotelian perspective is divided between scientific knowledge (episteme), productive knowledge (techne) and practical wisdom or ethical knowledge (phronesis). A democratic knowledge-based society can be built on the reciprocal recognition of different forms of knowledge. In the concept of phronesis we find the relationship between the particular and the universal. Human rights, criteria for justice, and some human values can be considered universal. Different contexts, identities and forms of understanding are particular. The relationship between them is the core of the democratic problem in a globalised world.

Different forms of knowledge

When we look at the sources for the differences in perspectives on knowledge we see two forms of understanding. Epistemology usually defines the very problem of knowledge in platonic terms: How can we justify our beliefs, what we think is true, to make our beliefs (doxa) into true or objective knowledge (episteme)? The definition of knowledge is *justified true belief*. Here the intellect is working, emancipated from our body and our feelings, the knowledge produced is that “which cannot be otherwise”, eternal and universal.¹

The concept for the knowledge we use in making things is *techne*, i.e. practical-productive knowledge. This form of knowledge is most widespread in the current labour market: the understanding of professional knowledge. But, then we ask if there exists a kind of knowledge we use when we work socially or culturally. The concept which, today, generally applies to ethical and political knowledge is *phronesis, or practical wisdom*²

What we find in the Aristotelian tradition is that knowledge is not something highly abstract, but is built into the contexts and activities we are involved in. The question of which branch of knowledge should be applied in which society can be answered thus: every form of education, community, workplace or context, the most beneficial forms of knowledge has to be applied in relation to that specific society or

¹ Plato, Theaetetus, (Oxford, Clarendon, 1973)

² Aristotle, The Nicomachean Ethics, Wordsworth 1996

Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?

GUNI - Global University Network for Innovation – www.guni-rmies.net

context. There is a specific discussion about scientific knowledge, which today can be understood from many different perspectives, depending on what field of science we work in, what aim we have and what kind of problems we aim to solve. What we have to realize is that this is a richness which gives us improved possibilities of finding the most fruitful perspective, in relation to our aim, problem and the area in which we work.

This approach not only illustrates the diversity of possibilities of what we can use in different professions and educations. It is also a reaction against the tendency to reduce knowledge into a commodity that is bought and sold on the market. Knowledge has an increasing exchange value in a knowledge based society, but is, simultaneously, losing its intrinsic or utility value.³In contemporary educational policies there is a strong tendency to believe that, from the outset, one can predict what forms of knowledge will be progressive. This is an out-dated insight, which I believe is no longer valid, for the simple reason that if you know from the beginning what the result of your research is going to be, why then carry out any research at all, as the results are already known.⁴ Searching for knowledge, or developing new knowledge takes time, it is a question of long and free processes, removed from all debates about efficiency and quick profits.

When knowledge and learning is treated as a commodity in the market, it is reduced to its economic value, and loses its democratic and humanistic dimensions in society and in the educational system. A rich and democratic society is built on the insight that there are different forms of knowledge which are adapted to the aim we have with our activity and in turn have a richness of perspectives of knowledge.

Knowledge is carried by human beings. That is the very difference between information and knowledge. Information is something we find in databases, in books or when we carry out an interview. Information is transformed into knowledge by an individual who makes interpretations and understands information within a context which in turn gives it meaning. This is the precondition for being able to use the knowledge we have, in practice, the very sign of that we have transformed information into our own knowledge.

³ Lyotard, *The postmodern condition, : A Report on Knowledge* (Manchester university press 1979, 1984)

⁴ Recognised already by Plato

Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?

GUNI - Global University Network for Innovation – www.guni-rmies.net

The huge rift in the educational system based on class and race is the division between theory and practice, education and training. This is a very deeply seated tradition, based on the idea that theoretical knowledge is of more value than practical knowledge. Today, this historical fact is changing in many ways.¹ The very fact that practical knowledge is recognized as knowledge in its own right is one of the reasons. The literature produced by practical knowledge is huge and is treated in many different concepts. Here, I will give a short overview of this discussion.⁵

Productive knowledge

The conceptions of productive knowledge, or professional knowledge, is today many. One of the most dominant in this field is tacit knowledge. What do we mean when we say that something is tacit, such as in tacit knowledge? It is not silent knowledge; tacit is something which is *pre-understood* as a background to what we are doing. Tacit knowledge is in one understanding the background knowledge we have when we are doing or making something, such as when I use a tool in relation to a material. When I am hammering a nail I have the focus directed on what I am doing, this is focal knowledge. But the fact that I know how to use a hammer, for what and when is background knowledge. In this sense tacit knowledge is built into different handicraft traditions, usually over very long periods of time. But the same thing happens when I try to solve a scientific problem, I have my concentration focused on the very problem. But how to treat it or solve it is related to how it is treated before, according to scientific traditions. There is always some kind of pre-understanding in what we learn or do.⁶ Another conception of tacit knowledge is dividing between what is possible to say, in verbal terms, and what is “unsayable”, but possible to show in what we are doing, what is shown and visible, and what can be interpreted in art or handicraft.⁷ Many seminars in Sweden in this school of thought are carried out in the form of dialogues between people who are researchers and those who work with art, music, handicraft or other different professions.

⁵ This is partly brought from my book *The philosophy of knowledge*, published in Swedish

⁶ Polanyi, *The tacit dimension* (Peter Smith 1983).

⁷ Bo Göranson, *The practical intellect*, (London, Springer 1993)

Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?

GUNI - Global University Network for Innovation – www.guni-rmies.net

One of the most influential concepts from the 80's and up until the present is the reflective practitioner. This is a reaction against the methods of solving problems in industrial society, when a technical or a scientific expert is invited to solve the problem in a workplace. The practitioners having to form their own reflections are the answer and alternative. Since so many professions are changing in terms of new techniques and organization the skills have to be inherent in the labour force, so the practitioner has to build his or her own reflection based upon what they are doing. The division here is between routine based work and reflected work, a necessity in a changing profession.⁸

Many thinkers and researchers formulate this division in different ways, either we just act as we are used to, or we reflect on what we are doing in order to improve it or change it. This is the main idea in the pragmatic tradition. Knowledge has its origin in what we do, when we act, and when we encounter a problem or have to change our habits, or are surprised, we have to reflect, in order to act in another way. ⁹Another perspective on practical learning or knowledge is to say that when we learn something we do it in the situations, contexts or practices we are involved in. It means that when we learn a profession we have to learn it in the context where it is practiced, to learn a profession is to be socialized into it.¹⁰

From this perspective we can then ask the more general question: if we are just socialized into something, where, then are the opportunities for reshaping what we have been socialized into and get a critical distance from it.

Ethical knowledge

We are socialized into the society, culture and traditions in which we are brought up. Can we therefore say that we are just products of this society and ought to think in terms of what is prescribed by tradition? This suggests an authoritarian view. There is in the democratic tradition an ideal about the personal autonomy, the capability of

⁸ Schön, The reflective practitioner, : *How professionals think in action* (Ashgate 1983, 1991).

Ryle, G, The concept of mind (Penguin 1949, 1990).

⁹ Dewey, Democracy and education, (Free press 1916,1966)

¹⁰ Lave, J, Situated learning: : *Legitimate peripheral participation* (Cambridge university press 1991).

Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?

GUNI - Global University Network for Innovation – www.guni-rmies.net

being critical towards what we are told to be true. This is the distinction in the third concept of knowledge, phronesis, or practical wisdom. ¹¹We are, so to speak, carriers of the habits and traditions in our societies, but today many would say that the aim of education is to encourage the development of a critical capability. This has to do with globalization, when the relationship between the local and the global comes into question.

Many people today express in different ways that the first duty of education is to develop the ability to be critical: critical competence. The reasons are several. We are not just introduced into something or educated in a certain tradition. We have the possibility of reflecting on this tradition in a critical way. If we have the ambition to educate citizens, not just citizens in a local or national society but world citizens, we cannot stay within the boundaries of our own traditions. If we do not study other traditions ultimately it will result in us not knowing anything about ourselves either. ¹² If I am in South Africa and come back to Sweden I look at Sweden through different eyes. The place I return to is not the same place as the one I departed from.

What is then phronesis? What does it mean to be a wise human being in a community? The question and point of departure for an answer to that question is: how do we act in the best way in order to improve our communities? How do we know how to act? Another word for practical wisdom is practical judgement. To have good judgement is to use our general knowledge in specific, concrete situations. We can suppose that a person with a great deal of life experience is in a good position to use those previous experiences when a decision has to be made on how to act in the best way. This is the understanding of practical wisdom, almost general, or universal in the world. In Africa, I am told, it is often women who carry the traditions and the stories of the group or community.

So we can say that this form of knowledge is traditionally formed by human beings, in social or cultural traditions. It has its origin in real life, outside the educational system. But what is happening today is that this form of knowledge is being introduced

¹¹ This is the difference between the communitarians and Martha Nussbaum

¹² Nussbaum, M, *Cultivating humanity, Cultivating Humanity: A classical defense of reform in liberal education*, Harvard university press 1997)

Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?

GUNI - Global University Network for Innovation – www.guni-rmies.net

into education. The reason for that could be formulated thus: that we are scientifically and technically advanced in modern society, but what there is a need for is the knowledge concerning how we can apply this knowledge which would be most beneficial for the community and for humanity.

The educational means for this introduction in many professional forms of education is literature, narratives, stories, and literature, what we can call “the indirect way to experience”. How is one, for instance, to educate a good lawyer? ¹³You learn the law and the rules, that is the general, but to apply the laws in specific, concrete cases, you must make decisions and this requires a wide and deep experience of life. If you haven’t been able to gain these experiences in your own life, you can read about those of others. That is what good literature is about.

Up to now we have seen that the conception and understanding of knowledge is becoming wider and that today we can talk about three forms of knowledge. We can see how the discussion about knowledge takes place in three strands, one directed to research and science, one to learning and knowledge in labour, and one in ethics and politics.

In universities, in health care, there are ethical boards. In science, if we take for instance gene technology, scientists are working scientifically and the ethical boards have to handle the ethical questions. Science in that sense is traditionally free from values – the very fact that it is free from values is indeed a defining aspect of science. This is the significance of science. The most significant sign of *techne*, or practical-productive knowledge is competence, skills and efficiency.

The sign for practical wisdom is value-based action. We cannot act ethically without having certain criteria for what is good for ourselves, the community and humanity. If we look at the huge discussion about ethics, we can recognise three schools, or traditions. The most influential is *utilitarianism* or consequence ethics, where the measure of good action is what the consequences are in terms of utility. Increase the luck and diminish the suffering. The second rule is duty ethics. From a general rule, “act as if the imperative of your action could be a general law”, you can

¹³ Nussbaum, M, Poetic justice, Poetic Justice: The Literary imagination and Public Life, (Beacon Press 1995)

Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?

GUNI - Global University Network for Innovation – www.guni-rmies.net

develop a universal ethics for humanity. The third alternative is virtue ethics which tells us about the concrete situation and making good judgments to be able to act in a good way.¹⁴

Supposing first, we are here allowed to be value-based. We can acknowledge that our values and traditions are contextualised in the communities in which we live. This is the focus on the local and the specific, the particular. The particular marks the parameters of clean virtue ethics. But at the same time, if we go to the universal side, and say that we have to have universal rules, there is little or no consideration for the local circumstances or the context, or the specific traditions.

This is the main problem today in a world of globalization. It is both a problem about knowledge and about ethics and politics. When you look at the intellectual discussion we can see how many take a position either for the local or the global, the particular or the universal.

In the question of knowledge, scientific knowledge is presented as universal. If I am carrying out an experiment and have the same conditions in different places and in different times and have the same result, the knowledge produced can be considered to be universally valid. Consider, in relation to this example, the discussion of indigenous knowledge, which is often presented to be local and bound to a certain context. This discussion can be continued to include lifestyles, religions, and cultures. The most interesting question here is how we can look at and analyze this relationship between the universal and the particular, the local and the global.¹⁵

Democracy

If we look closer at the meaning of *phronesis* we can find that practical judgement developed in a hermeneutic tradition means how we make interpretations of reality from a specific situation, the particular context or situation we are in, meet the general or the universal, what is open for different interpretations. The general problem here can be expressed in terms of the relation between the particular and the universal. Interpreted as an ethical problem, related to the problem of knowledge, we have here a

¹⁴ The core of phronesis is to relate the particular case from the general knowledge we have

¹⁵ Elsewhere, in Odora Hoppers, I have written about how this can be understood in relation to the democratic problem

Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?

GUNI - Global University Network for Innovation – www.guni-rmies.net

core problem of our time. In ethical terms we can from an Aristotelian view say that ethics and right action is contextualised in our own community. On the universal side, aspects such as human rights, criteria for social justice, or even some universal human values, such as the right to develop our capabilities, have to be taken into account.¹⁶

If we look at the advanced discussion about democracy in contemporary globalised society today, we can find defenders either of the particular (in terms of communities, identities, cultures), or of the universal (rights, justice, capabilities). Some philosophers and researchers try to find relationships in these two standpoints in the hope of bridging the existing divide.

Scientific knowledge has most often the ambition to be universal. At the same time certain forms of knowledge are local and dependent on context in different forms of praxis and situations. That is the case if we talk about situated cognition, practical wisdom or indigenous knowledge. How can we then look upon the problem that knowledge can be considered to be both universal and local or situated in the particular? I would say that the most interesting contemporary research and philosophy have the ambition to communicate and transcend this contradiction, dichotomy, tension or whatever we call it. Let me exemplify with human rights. Human rights are universally formulated but at the same time they are often invoked by western powers to assert a superior position while they remain necessary for the democratic development of the world. Spivak's conclusion is both appreciation and criticism, so that we "never stop criticizing that which one does not *not* want" is her concluding statement on human rights.¹⁷

The idea that democratic and human rights issues should be a concern for all countries and peoples of the world is a point of view that is held by many. This indicates that the democratic tradition has universal values and advocates rights which can be interpreted into all local and individual contexts. In recent years Nussbaum has defended universal values with a focus on women who have been oppressed by local cultures on the Indian subcontinent.ⁱⁱ She supports her theory with help from the economist, Amartya Sen and presents a universal theory on human development

¹⁶ Representatives in contemporary discussion are Rawls, Nussbaum, Sen, Habermas

¹⁷ Maclean, L: The Spivak reader, (Routledge, 1996)

Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?

GUNI - Global University Network for Innovation – www.guni-rmies.net

based on the founding idea that people are given the opportunity to develop their own capabilities. Sen states that this is a central criterion for forming the freedoms which are necessary for the development of democratic societies in poor countries.¹⁸ These freedoms encompass all aspects of life from an acceptable standard of living, a good standard of health as well as being able to express emotions, feelings within the community and have control of one's own private life.

Seyla Benhabib is an advocate of this standpoint, she illustrates in a way which sees the universal opening towards the particular and criticizing its uncommunicative qualities. Her main focus of attention is drawn towards the problem of group identities becoming given truths which then remain static for all future generations (1996). Benhabib also opposes any attempts to preserve the purity and uniqueness of cultures claiming that they are not compatible with democratic discussions and evaluations. Cultures are established through taking part in complex dialogues with other cultures; therefore democratic inclusion and preserving cultural characteristics need not exclude one another. Sensitivity towards cultural demands and a strong universalistic standpoint can be unified. She defends a modified form of deliberative democracy based on the norms of universal respect and mutual egalitarianism. Established norms are understood by the participants in a discussion based on the particular situation they find themselves in. This implies that when universal norms are interpreted they are determined according to each particular situation.¹⁹

In Ricoeur's *Oneself as Another* he addresses the need to think of oneself as another and another as oneself. Ricoeur is aware, when presenting this idea, of its contrasting position and criticism of Levinas's theory on the involuntary situation where one must choose between oneself or the other. Ethics includes, or rather takes its point of departure in self appreciation and self respect, which in this case becomes a prerequisite for a relationship with the other.

The fundamental task of ethics can be summarized in one sentence: to achieve "a good life, with and for others in just institutions". A good life is described as "the

¹⁸ Amartya Sen, *Development as Freedom*, (New York, Knopf, 1999)

¹⁹ Benhabib, S: *The claims of culture: equality and diversity in the global era*, (Princeton university press 2002)

Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?

GUNI - Global University Network for Innovation – www.guni-rmies.net

nebula of ideals and dreams of what we would like to achieve, which refers to what a life can be when it is more or less complete”.ⁱⁱⁱ This means that the individual, practical actions and the desires which influence our options in differing situations should be seen in the light of our entire lives, our narratives. People are regarded as self interpreting beings who interpret their lives by means of the stories they tell. Here practical judgement is broadened to a never ending series of interpretations of what it is to be a human being, in which our actions and our way of living become part of a whole story of life.²⁰

However the good life for the individual will remain an abstraction if it is not related to a life *with and for others*. Caring for the other is contingent on an appreciation of the individual's own value. The self and the other relate to each other unconditionally in a state which is characterized by the dialogue. This ideal relationship can be found in Aristotle's concept of friendship. Here the ideal friendship has its own value, a person who wishes good upon another with no other intention than improving the best interests of the individual in question. This is a situation where two parties are in an equal relationship with each other, a mutual giving and receiving, based on trust. The entire discussion on social trust and its implications for democracy has its origins in the Aristotelian concept of friendship.

The friendship experienced between close friends, a personal relationship, should be regarded as separate from social friendship; nevertheless it lies in close proximity to the righteous by the nature of its mutual equality. The righteous relationship is given by means of their equality. Any friendship which is consistently defined as a just, mutual relationship requires the establishment of *equitable institutions*.^{iv} In this way it distinguishes itself from a close personal relationship.

Conclusion

In this paper, I have from an alternative understanding of knowledge in contemporary society, and tried to show the relation between knowledge, ethics and democracy. This alternative is informed by the ambition to transcend the division between theory and

²⁰ Paul Ricoeur, *Oneself as another*, p. 174ff. (The university of Chicago Press 1992)



Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?

GUNI - Global University Network for Innovation – www.guni-rmies.net

practice, mind and body, brain and hand. A learning or cognition process starts from where and who we are. Knowledge is information or practices incorporated into our minds and bodies which includes a personal understanding as a precondition to apply it in practice. Knowledge takes place in different contexts, practices and situations, but cannot be reduced to these contexts. There is always a human being, reflecting critically and developing herself in activities meaningful both for the individual and society. We are always acting and thinking both individually and culturally, depending on the contexts in which we live. The particular individual we are or the local community we live in is today in one way or another dependent and related to the global and universal. This relationship between the particular and the universal is the great challenge today to treat in dialogue, in order to build a good life, with and for others, in just and fair institutions. A good life, the *nebulosa* of our dreams and ideals, in friendship with others, in a society built on justice and human rights. This is the basic aim for working with knowledge, learning and community work. The sum of a democratic ambition.



Bibliography

- Aristoteles: *The Nicomachean Ethics*, Wordsworth 1996
- Benhabib, S: *Democracy and Difference: Contesting the Boundaries of the political*, ed. (Princeton University Press 1996), *The claims of culture: equality and diversity in the global era*, (Princeton university press 2002)
- Bernstein, R: *Beyond objectivism and relativism* (Daidalos 1987).
- Chaiklin, S & Lave, J: *Understanding practice: Perspectives on activity and context* (Cambridge university press 1996).
- Dewey, J: *Democracy and education* (Free press 1916,1966)
- Gadamer, H-G: *Truth and Method*, Sheed and Ward(1960, 1975)
- Gustavsson, B: *The philosophy of knowledge* (published in Swedish), *Negotiating the space of democracy between the universal and the particular: the role of phronesis*, in C.Odora Hoppers, *Democracy and human rights in education and society*, (Örebro studies in education, 2007)
- Göranson, B. *The practical intellect: computers and skills*, (London, Springer 1993)
- Lave, J: *Situated learning: Legitimate peripheral participation* (Cambridge university press 1991).
- Lyotard, J-F: *The Postmodern Condition: A Report on Knowledge* (Manchester university press 1979, 1984)
- Maclean, L: *The Spivak reader*, (Routledge, 1996)
- MacIntyre, A: *After Virtue: A study in moral theory* (Duckworth 1981, 1985).
- Nussbaum, M C: *Poetic Justice: The Literary imagination and Public Life*, (Beacon Press 1995)



Vol. 1. Ethics and relevance of scientific knowledge: what knowledge for what society?

GUNI - Global University Network for Innovation – www.guni-rmies.net

- Cultivating Humanity: A classical defense of reform in liberal education, Harvard university press 1997)
 - Plato: Theaetetus, (Oxford, Clarendon, 1973)
 - Polanyi, M: Personal knowledge: towards a postcritical philosophy, (Routledge 1958, 1998) Tacit knowledge (Peter Smith 1983).
 - Rawls, J: A theory of justice (Oxford university press 1973).
 - Ricoeur, P: Time and Narrative (The University of Chicago Press 1985, 1990), Oneself as another, (The university of Chicago Press 1992)
 - Ryle, G: The concept of mind (Penguin 1949, 1990).
 - Schön, D: The reflective practitioner: How professionals think in action (Ashgate 1983, 1991).
 - Sen, A: Development as freedom, (New York, Knopf, 1999)
-