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Studi

Epistemological Contextualism and Cultures of Knowledge

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Abstract My first aim in this article is to describe the origin of the notion of *culture of knowledge* due to the research activities carried out at the University of Frankfurt by the Research Group *Culture of Knowledge and Social Change* since 1999. In this context we examined the relation between knowledge and society and proposed the notion of *culture of knowledge* as a key-concept to emphasize that knowledge does always appear in a specific historical form, and can be investigated only as a social practice. This key-concept turned out to be a helpful heuristic construct and had therefore a widespread diffusion as a general and extremely flexible category which can shed light on mutual relations between knowledge and culture in several historical contexts. Secondly, I will compare the approach taken *in the culture of knowledge* with other contextualist approaches of contemporary research areas like History of Science and Theory of Culture to show that it is particularly helpful in terms of connecting different fields. Finally, I will drive attention to a basic question concerning the approach of the *culture of knowledge* which remains still unanswered. The Frankfurter Research Group considered it as a model of knowledge alternative to all those positions in History of Science and Theory of Culture that assume the universal, trans-historical, and trans-cultural validity of fundamental forms of knowledge and cognitive abilities. I will discuss whether and to what extent these positions are really alternative, and for this purpose I will focus on a central point: whether the thesis of a radical historicity of knowledge undermines the very idea of universal rationality and to what extent.
KEYWORDS: Cultures of Knowledge; Contextualism; History of Science; Epistemology; Models of Knowledge.

Riassunto *Il contestualismo epistemologico e le culture epistemiche* – In questo articolo intendo illustrare la nascita della nozione di *cultura epistemica* nell'ambito delle indagini svolte presso l'Università di Francoforte dall'unità di ricerca *Cultura epistemica e mutamento sociale* a partire dal 1999. In questo contesto si è indagato il rapporto tra sapere e società e proposto la nozione di *cultura epistemica* come concetto-chiave per sottolineare come il sapere compaia sempre in una forma storica specifica, e come questo stesso possa essere indagato solo come pratica sociale. Questo concetto-chiave si è rivelato un concetto euristicamente fruttuoso e perciò nel frattempo ha conosciuto ampia diffusione come categoria generale ed estremamente flessibile per gettar luce sui reciproci rapporti tra sapere e cultura in diversi contesti storici. Inoltre, intendo comparare l'approccio delle *culture epistemiche* con altri approcci propri della ricerca contemporanea in arre come la storia della scienza e la teoria della cultura per mostrarne l'utilità nel relazionare tra loro campi diversi. Infine, voglio portare l'attenzione su un problema di fondo, ancora aperto, che riguarda l'approccio delle *culture epistemiche*. L'unità di ricerca francofortese ha inteso questo approccio come modello di conoscenza alternativo a tutte quelle posizioni nella storia della scienza e nella teoria della cultura che assumono la validità universale, trans-culturale e trans-storica, delle forme fondamentali del sapere e delle capacità cognitive. Intendo discutere se e fino a che punto queste posizioni siano realmente alternative. Per questo mi concentrerò su un elemento centrale: se e fino a che punto con la tesi della radicale storicità del sapere venga intaccata l'idea stessa di una razionalità universale.
PAROLE CHIAVE: Culture epistemiche; Contestualismo; Storia della scienza; Epistemologia; Modelli della conoscenza.

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Epistemological contextualism and skepticism

MOST PEOPLE AND MANY EPISTEMOLOGISTS are convinced that

(1) they know a lot,

(2) knowledge is infallible, and

(3) knowledge claims are fallible.

These three thoughts create a serious paradox that seems to imply scepticism.[1] One way of expressing this consequence is to maintain that *knowledge* is an absolute concept. That is to say, there is, in our world, no mental state that is absolute knowledge excluding all possible evidence that it might not be knowledge. At most a mental state can be, it seems, called knowledge if it is, as a matter of fact, an approximation to knowledge. But knowledge does not come in grades. Therefore, an approximation to knowledge is not knowledge at all. Thus, in our world knowledge cannot be had. And this is exactly what the skeptic urges.[2]

The most plausible diagnosis of this situation is that thoughts (1)–(3) come down to conceiving of knowledge as natural kind (as epistemological realists do) and trying to find a foundation for knowledge other than knowledge itself (as epistemological foundationalists do). That is, the paradox follows from epistemological realism and epistemological foundationalism that are, in turn, the most fundamental assumptions guiding traditional epistemology. If we stick to traditional epistemology, we generate the paradox and are forced to surrender to the skeptic.[3]

One way of dealing with this skeptical threat is to insist that *knowledge is context-sensitive*, i.e. to urge that it depends on the context which standards of justification are accepted and which premises are taken for granted and thus, whether true beliefs count as knowledge or not. This familiar kind of *epistemological contextualism* relies on the traditional JTB-account of knowledge (treating knowledge as justified true belief). According to epistemological contextualism knowledge is some sort of true belief, but it is justification that makes knowledge context-sensitive. More precisely, it is not only justification that is context-sensitive, but also, for instance, epistemic goals, articulated doubts and social expectations of meeting objections.[4] In particular, epistemic reasons R for belief p can have defeators D such that D-and-R is not an epistemic reason for p any more; however, defeators are context-sensitive.[5]

From this point of view epistemological contextualism is often taken to be, by getting past traditional epistemology, the best way of escaping scepticism. In particular, epistemological contextualists claim to be able to explain why most people and many epistemologists stick to thoughts (1)–(3). The explanation offered is that people neglect the context of knowledge claims and therefore falsely think that propositions expressed by knowledge claims uttered in a certain context are the same as propositions expressed by the same knowledge claims uttered in a different context.

Epistemological contextualism as relevant alternatives account

A popular form of epistemological contextualism is the *relevant alternatives account* according to which a claim to knowledge that p is correlated with possible alternatives being incompatible with p. Knowledge requires that we exclude all these alternatives. But mobilize your imagination, and you will find possible alternatives that you cannot exclude. However, proponents of the relevant alternatives account stress that some of these alternatives are irrelevant, while others may be relevant. Most importantly, which alternatives are relevant or irrelevant, respectively, is context-dependent.[6]

For instance, in everyday life, whether a warehouse can be called empty depends on whether there are still goods around or not. In this context, the possible alternative that there are still molecules left in the house is clearly not relevant. In other contexts, however, this alternative may be relevant, for instance if we look at the warehouse as a gigantic vacuum-chamber. Therefore, it can be maintained that in the everyday context, the warehouse is empty in the full sense (in which *empty* is taken as

absolute concept) iff there are no goods around anymore. It follows that from the fact that *A* is an absolute concept it cannot be derived that in our imperfect world there is nothing that is A in the full sense. In particular, then, the fact that *knowledge* is an absolute concept does not entail skeptical conclusions. Thus, according to the relevant alternatives account, *knowledge* is a belief such that the possible relevant alternatives can be excluded. In this sense, knowledge can often be had.[7]

However, there are two different sorts of possible alternatives to knowledge claims, one being determined by *subjective factors* concerning the knower, the other being defined by *ascription factors* concerning the speaker who ascribes knowledge to somebody else. Epistemological contextualism, set out as relevant alternatives account, claims that not only subjective factors, but also ascription factors are context-sensitive. If S believes, and claims to know, that there is a barn in front of her, and if speaker S* considers whether she should ascribe knowledge to S, in respect of this claim, then it is relevant for this knowledge claim whether S and S* are in barn facades county or in a landscape where there are only a few, if any, barn facades. It is in the former but not in the latter context that for the belief to be knowledge the possible alternative of there being just a barn facade be eliminated. But what counts epistemologically is whether S* knows what the context is. If S* knows that they are in barn facade county, then S* will demand that S excludes the possibility of there being just a barn facade in order to be able to ascribe knowledge to S, whatever S thinks the context to be.

Some epistemological contextualists supporting the relevant alternatives account emphasize that ascription factors have an impact for the truth conditions or the meaning of knowledge sentences. So if ascription factors are context-sensitive, this will go for the meanings of knowledge sentences too. Let AS* and AS** be two different contextual ascription factors, then the sentences *S knows that p relative to AS** and *S knows that p relative to AS*** have different meanings. It turns out, then, that one important ingredient of epistemological contextualism is a *contextualist semantics for knowledge sentences.*[8]

Standards of justification

In its standard version epistemological contextualism does not reflect on *the relations between different epistemic contexts* nor between *different standards of justification* correlated with different epistemic contexts. This is certainly a theoretical deficit. There are some epistemological contextualists, though, who seem to have realized this problem. Shiffer, for example, distinguishes between two standards of justification, Tough (in science) and Easy (in everyday life), respectively.[9] David Annis, being a convinced epistemological contextualist, concedes, in addition, that there has been a refinement in the historical development of methods of discovery and testing, for instance in science, and thus, that there are not only different standards of justification, but also *differently refined standards of justification.*[10]

Nevertheless Annis sticks to a relativist position. For he thinks that

(a) if contexts C and C* with correlated justification standards S and S*, respectively, are differently refined (such that C* and S* are more refined, and so epistemically more adequate, than C and S), and

(b) if person P is justified to claim to know that p in C and under S, but not in C* and under S*, then

(c) P has knowledge of p in C and under S, even if P does not have knowledge of p in C* and under S*.

The thought (a)–(c) articulates, as Annis emphasizes, precisely that justification and knowledge are context-dependent. But he does not realize that argument (a)–(c) defines a stronger version of epistemological contextualism, that is, that we can distinguish

(EC 1) *Weak epistemological contextualism*:

(1) Knowledge depends on different contexts.

(2) The contexts mentioned in (1) are not differently refined.

(EC 2) *Strong epistemological contextualism*:

(1) Knowledge depends on different contexts.

(2) The contexts mentioned in (1) are differently refined.

However, (E1) is, to say the least, much more plausible than (E2).

Sometimes contextualists conceal the problem with (E2) by confusing knowledge and attributions of knowledge. For example, Cohen wants to show that social standards are important for determining whether a person has knowledge; but a little later he puts his claim by saying that attributions of knowledge are context-sensitive.[11] Of course P knows that p if P* *truly* attributes the knowledge that p to P, but if S* attributes the knowledge that p to P, then it does not follow that P knows that p. Furthermore, we must, as we have seen, distinguish between the context the potential knower S is in and the context the speaker S* who considers to ascribe knowledge to S is in. And it must also be decided whether one of these contexts puts its inhabitants into a better epistemic position than the other. If so, claims to knowledge in the better context override claims to knowledge in the worse context – which is incompatible with strong epistemological contextualism.

One of the most thoughtful epistemological contextualists, David Lewis, seems to agree with this conclusion by saying:

> Better knowledge is more stable knowledge: it stands more chance of surviving a shift of attention in which we begin to attend to some of the possibilities formerly ignored. If, in our new shifted context, we ask what knowledge we may truly ascribe to our earlier selves, we may find that only the better knowledge of our earlier selves still deserves the name. And yet, if our former ignorings were proper at the time, even the worse knowledge of our earlier selves could truly have been called knowledge in the former context.[12]

Mild epistemological contextualism

The remark by David Lewis just quoted is important. One should add, though, that

(i) the distinction between better and worse knowledge requires the distinction between better and worse epistemic contexts;

(ii) if a belief can be called knowledge in a worse epistemic context, but not in a better epistemic context, then, from the perspective of the better epistemic context, the belief could truly have been *called* knowledge in the worse context, *but this belief was not knowledge*;

(iii) if there is a worse and a better epistemic context available at the same time, if a belief can be called knowledge in the worse, but not in the better epistemic context, then the belief in the worse epistemic context *could not even have been truly called* knowledge in the worse context.

From this point of view epistemological contextualists can, and should, distinguish between *three kinds of knowledge*:

Suppose person P believes truly that p, then

(a) P *a-knows* that p iff there is an available epistemic context (including standards of justification) C (i.e. a context the community S belongs to is familiar with) such that P is, relative to C, justified in believing that p.

(b) P *b-knows* that p iff P a-knows that p and there is no available context C* better than C such that P is, relative to C*, not justified in believing that p.

(c) P *c-knows* that p iff P b-knows that p and there is no better context C** whatsoever such that P is, relative to C**, not justified in believing that p.

Obviously, c-knowledge cannot be achieved. But a-knowledge and b-knowledge can be had, and even if c-knowledge is beyond our reach, this does not exclude that much of what we a-know or b-know is in fact c-knowledge. One of the failures of skepticism is not to see this. It follows that

(a) saying that we know a lot is to say that we a-know or b-know a lot (implying that we have, so far, reasons to believe that this knowledge is in fact c-knowledge);

(b) saying that we are all good fallibilists is to say that c-knowledge cannot be known to have been reached.

There is nothing inconsistent in entertain-

ing both claims (a) and (b). If people feel unhappy about splitting the notion of knowledge, no problem. We should not argue about terminology. We can likewise say that c-knowledge is *the* notion of knowledge, while a-knowledge and b-knowledge are two important forms of *context-sensitive justified defeasible ascriptions of knowledge*. In any case, it follows, obviously, that a-knowledge and b-knowledge come in grades, while c-knowledge remains an all-or-nothing affair. More importantly, distinguishing between better and worse epistemological contexts and between three kinds of justification provides the conceptual resources to introduce a notion of ideal or perfect knowledge (roughly c-knowledge). It is only against the background of such a notion of perfect knowledge that we can talk about better or worse contexts and about defeasibility conditions of context-sensitive justified knowledge ascriptions. In this sense it is, in talking about contexts of knowledge, not only possible, but even necessary to bring a notion of ideal knowledge into play.

If epistemological contextualists accept that

(i) talking about contexts that are epistemologically better or worse is possible and sometimes even necessary,

(ii) knowledge comes in three kinds (a-knowledge, b-knowledge, and c-knowledge, according to (a)–(c) above), and

(iii) to talk about context-sensitive epistemological contexts we need a conceptual grasp of what ideal perfect knowledge would look like,

then epistemological contextualism turns into a mild form, viz. *mild epistemological contextualism*.

Non-veritistic social epistemology

Another brand of epistemological contextualism is social epistemology which looks not only at contexts of knowledge, but in particular also at contexts of science. Social epistemology proceeds from the assumption that a sociological analysis of science and scientific knowledge (that is, an analysis of social contexts of science) can be fruitful and illuminating. However, there are two sorts of social epistemology: Veritistic and non-veritistic social epistemology.

Non-veritistic social epistemology stresses that empirical, historical and sociological studies of scientific practices show that science and scientific results do not depend exclusively on the objective external world which, according to traditional epistemology and philosophy of science, is supposed to make scientific beliefs true or false, but rather also (even mainly or exclusively) on social arrangements resulting from negotiations between scientists taking place in the course of scientific practices. The crucial idea is that science, scientific knowledge, and scientific practices are socially determined.

Non-veritistic social epistemology proposes three fundamental theses:[13]

(i) Contingency thesis: Natural sciences could have developed in alternative ways. The way natural sciences have in fact developed is not inevitable, but was to a certain extent contingent.[14]

(ii) Nominalist thesis: At most some individual things, but not facts or universals, can be taken to exist independently of humans and their social actions.

(iii) Stability thesis: Explanations for the stability of scientific beliefs must rely at least in part on social factors that are external to the internal criteria of theory choice maintained in modern natural sciences and articulated in rationalist philosophies of science.

The earliest prominent version of non-veritistic social epistemology is *the Edinburgh school of the sociology of science* (sometimes called the *strong programme of the sociology of science*). The proponents of this school urge that all sciences including mathematics and natural sciences are socially determined. Moreover, it is not only the historical development of science, its rise and success, that is influenced by social forces; rather, it is also the content of accepted scientific beliefs that is determined by social factors or social interests being involved in scientific practices.

The four methodological principles guiding

the Edinburgh school of the sociology of science are:

(i) Causality, i.e. exploration conditions that causally bring about claims to some sort of knowledge.

(ii) Impartiality, i.e. examination of successful as well as unsuccessful knowledge claims.

(iii) Symmetry, i.e. use of the same types of explanations for successful and unsuccessful knowledge claims alike.

(iv) Reflexivity, i.e. application of the theory to itself.[15]

From their sociological studies the Edinburgh sociologists of science conclude that there is no definite unique set of rational methods that guide scientific practices and can be referred to in order to explain how scientific results and beliefs are established. Another result is that a sharp distinction between the context of discovery and the context of justification is not helpful in sociological investigations of scientific practices. In this way, the Edinburgh school rejects fundamental assumptions held by the traditional philosophy of science. In terms of epistemological contextualism these results seem to show that, not the distinction between the context of discovery and the context of justification, but different standards of rationality are parts of epistemic contexts.

On this view the sociological analysis of scientific practices must be a causal explanation of belief formation: it is supposed to show in detail how specific scientific beliefs are established as a result of causal processes proceeding from social conditions, social interests, and negotiations between scientists.[16] Therefore, social epistemology is, in the view of the Edinburgh school, itself a kind of natural science. It can also be formulated as a methodological claim mandating a naturalistic approach to scientific practises. As such, social epistemology is best understood as being part of a naturalized epistemology concentrating on the investigation of social causes of belief formation and is committed to the claim that scientific knowledge cannot simply be seen as an adequate representation of the external objective world, but must rather be taken to be the result of an extremely complex process involving mainly social causes. In this way, social epistemology is not only a form of anti-rationalism, but also a form of anti-realism and relativism.

Another version of a non-veritistic social epistemology is the *actor-network theory*.[17] In this version it is claimed that scientific knowledge flows from established relations between objects, animals and humans engaged in scientific practices. An *actor* is supposed to be everything that in some causal way affects the production of scientific theories: not only scientists and their actions, but also, for instance, background assumptions, methodologies, techniques, social rules and institutions, routines, experiments, measurements and the appropriate instruments as well as scientific texts. There are many kinds of interactions between actors; in particular, some actors can transform other actors. A *network* is a set of actors such that there are relations and transformations between the actors that are stable, in this way determining the place and functions of the actors within the network. Once a network has been established it implies a closure that prevents other actors or relations from entering the network, thereby opening the possibility of accumulating scientific knowledge that is the result of transformations within the network. Establishing a scientific belief or theory or fact comes down, from the point of view of the actor-network theory, to placing these actors in a stable network. In this sense, scientific beliefs, knowledge, and theories are taken to be constructed by transformations taking place in established networks. Obviously, the actor-network theory takes the actor-network to be the epistemic context of scientific knowledge.[18]

A well-known general objection against non-veritistic approaches to social epistemology is that the leading studies use empirical, sociological and historical evidence to justify fundamental and far-reaching claims that are supposed to debunk the epistemic authority and universal rationality of the sciences. Obviously, in doing so they rely themselves on exactly those scientific methods they try to debunk. For instance, the claim that «there are no con-

text-free or super-cultural norms of rationality»[19] can only be defended by carefully examining the historical and cultural evidence as well as by applying the hypothetical-deductive method.

Veritistic social epistemology

Veritistic social epistemology aims at identifying and evaluating social interactions, practices and forces that influence – in a positive or negative way – the pursuit of truth and the production of true justified beliefs.[20] On this view, science and education place a positive value ("veritistic value") on having true beliefs rather than false beliefs. Social interactions, practices and forces that influence – in a positive or negative way – the pursuit of truth include communicational acts (like discussions and correspondence between scientists), institutional structures that frame such acts (like universities, journals publishing peer reviewed articles, or conferences), speech practices (of reporting and arguing), ways of access to different sorts of information (libraries, internet resources), market mechanisms regulating the flow of speech, information technologies, legal systems, and ways of disseminating information.[21]

Another social aspect of science is the division of cognitive labour.[22] For instance, it will optimize the scientific pursuit of adequate and successful theories if different members of a scientific community pursue different strategies of solving a scientific problem, rather than all work on the most promising strategy. Science can, on this view, only make progress if it relies on a social consensus practice that includes an exploitation of reliable scientific authorities, formal and empirical methodologies and background assumptions.[23]

Basically, there is nothing wrong with veritistic approaches to social epistemology. This is not to say, though, that there are no open problems with this view. For example, one of the topics that need to be addressed is in which way the pursuit, not of true beliefs, but of justified beliefs can be socially determined. In this context, the problem of reliable testimony must be discussed.[24] In addition, the historical change of epistemic practices and cultures of knowledge seems to involve a relativism of rationality and justification.[25] In any case, veritistic social epistemology presents a fairly rich view about epistemic contexts including communicational acts, institutional structures, journals, speech practices, ways of access to, and dissemination of, information, information technologies, legal systems, division of cognitive labour, and social consensus practices.

Theories of cultures of knowledge

Another way of addressing the social aspects of science in is to develop theories of cultures of knowledge. The starting point of such theories is the idea that knowledge is often intrinsically tied to epistemic cultures, and epistemic contexts can be treated as a sort of culture.

This approach relies on a notion of culture and is committed to outline this much debated notion. Basically we can distinguish universal, epistemic, semantic and social conceptions of culture. In the universal sense, culture is the whole set of human social activities; in the epistemic sense, the culture of a social group is the group's entire knowledge;[26] in the semantic sense, culture is a system or net of meanings;[27] and in the social sense, the culture of a social group is the group's system of social rules.[28] If we want to reflect on cultures of knowledge, then it seems obvious that the universal notion of culture is too broad, while the epistemic and semantic notions of culture are in danger of producing a circular definition of cultures of knowledge. Therefore, cultures of knowledge should be treated as a brand of cultures in the social sense. However, this sort of culture must be worked out a bit more precisely:

Cultures in the social sense

(1) consist basically in *certain human practices* some of which are practices of rule-following.

(2) These practices are usually correlated with *background assumptions* guiding the methods and goals of the practices.

(3) In addition – and very importantly – the practices and background assumptions are

handed down to following generations in a cumulative way by teaching and learning.

(4) Part of this historical process are *power relations* between teacher and student; in particular, in social cultures *regulative power* is prominent, viz. the power to get other persons to follow certain rules.[29]

Alternatively, we can define cultures in the social sense as a set of people such that these people, and only these people, exercise certain practices that satisfy conditions (1)–(4). Social cultures in this sense are not determined by local or ethnic or national contexts, but rather by historical chains that can be reconstructed in terms of theories of social learning.[30] In particular, since there are presumably no sets of practices such that all and only the people of a certain nation exercise these practices, there are probably no national cultures in the social sense.

This notion of a social culture can easily be specified to a *notion of epistemic cultures*:

Epistemic cultures

(5) consist basically in *certain human practices* (some of which are practices of rule-following) aiming at producing, selecting, and disseminating (scientific) knowledge (true justified beliefs).

(6) *Knowledge* is taken to be a mental state, i.e. a brain-state displaying correctness conditions und thus, providing representations and operating in the space of reasons.[31]

(7) These practices are usually correlated with *background assumptions* determining the methods and goals of producing knowledge and outlining a notion of what perfect knowledge would look like.

(8) In addition – and very importantly – the practices and background assumptions indicated in (6) are *handed down to following generations in a cumulative way by teaching and learning* the production of knowledge in education institutions like schools and universities.[32]

(9) Part of this historical process are *power relations* between teachers and students in schools and universities; in particular, in epistemic cultures *regulative power* is prominent, viz. the power to get other persons to follow the rules of producing knowledge.

Finally, as a first move we can introduce the *notion of cultures of knowledge* simply by identifying cultures of knowledge with epistemic cultures. In the framework of theories of cultures of knowledge, it is the epistemic culture that is supposed to be the epistemological context for states of knowledge.

To investigate cultures of knowledge comes down to analyzing the epistemic practices of a group of people and exploring the social realization of these practices. Examining cultures of knowledge is an attempt, not to examine simply the social conditions in which theories did rise and fall, as traditional social epistemology has it, but to look at the complex of epistemic practices, theories and ideals of knowledge, as well as their social conditions and realizations. The point is not to treat definitions of knowledge as mere ideological epiphenomena, but to relate them to epistemic practices and the social environment.[33]

Veritistic versus non-veritistic social epistemology: A brief comparison

In the last two decades, there has been an ongoing controversial debate between proponents of veritistic and non-veritistic versions of social epistemology. Indeed, it is hard to imagine how a consensus between the parties could be achieved. Actually, one can look at the two approaches as belonging to very different scientific projects. The representational and sensitive mind is, as the modern theory of mind has it, realized in physical states and things. Therefore it is certainly possible to explore mental states and minded animals exclusively in terms of their physical realizers.[34] This possibility is exploited by non-veritistic approaches to social epistemology. These approaches are looking exclusively at causal relations between thinkers and elements of epistemological contexts. Therefore, they don´t care whether thinkers have true or false beliefs, and they don´t care either whether thinkers develop successful or unsuccessful theories. For taking into account the difference between true and false beliefs or between successful and unsuccessful theories

comes down to treat thinkers, their beliefs, their theories and their epistemic activities as belonging to the space of reasons.

As already mentioned above, one problem is that the non-veritistic approach to social epistemology cannot be applied to itself. Another problem is that this approach talks, among other things, about negotiations and discussions between scientists as having impact on what beliefs and theories will be selected and accepted; these processes take place, though, in the space of reasons which indicates an inconsistency. A third problem is that non-veritistic approaches don't have the resources for distinguishing between beliefs coming about by, say manipulation or political repression and beliefs coming about in a free non-repressive intellectual environment; that is to say, these approaches cannot explore the normative dimension of belief formation (ways of how belief formation should, and should not, come about). It must be conceded, however, that this physical stance toward belief formation can result in illuminating insights. At the same time, it must be stressed that this stance does not take into account those properties of some physical states and things that make them mental states and minded beings, respectively.

In contrast, veritistic approaches to social epistemology aim to live up to an intentional stance towards belief formation, appreciating the representational and sensitive dimension of mental states and minded beings. Therefore, they do care whether thinkers have true or false beliefs, and they do care whether thinkers develop successful or unsuccessful theories. In addition, these approaches can be applied to themselves and can do justice to the normative dimension of belief formation. This goes for theories of cultures of knowledge too. These theories belong, therefore, to the veritistic approaches to social epistemology. One might think that veritistic approaches develop a fuller and richer picture of belief formation than non-veritistic approaches. Nevertheless it seems clear that these two views on the formation of beliefs, knowledge and scientific theories have quite different goals and look at quite different phenomena. So it may be a waste of time and energy for each party to continue debating with each other instead of pursuing their specific objectives.

Ingredients of epistemic contexts, extended disquotational truth, and superjustifiable belief

Epistemological contextualists speculate a lot about context-dependent knowledge, but do not tell us what exactly they take epistemic contexts to be. From our discussion of different brands of epistemological contextualism we can conclude, though, that epistemological contextualists believe that the *main ingredients of epistemic contexts* are a language L, specific scientific presuppositions SC, epistemological assumptions EA about what knowledge and science in general are, a logic LO, a mathematics M, testing rules TR, and educational institutions EI. So *epistemic context* C, taken as an epistemic culture that can be, and is usually, taught, learned, handed down and institutionalized, amounts basically to the structure C = <L, SC, EA, LO, M, TR, EI>.

Now suppose that (i) S has belief b in context C, (ii) b is true, (iii) S* being in context C* considers whether she should ascribe knowledge to b, (iv) C* is better than C, and (v) L in C is (of course) translatable into L* in C*; then we can distinguish different conditions (different types of situations) under which S* might feel to be justified to call b knowledge and so to ascribe knowledge to S concerning b:

(c1) the entire C (i.e. <L, SC, EA, LO, M, TR, EI>) is acceptable[35] for S*;

(c2) SC in C is not acceptable for S*, but everything else in C is;

(c3) SC and EA are not acceptable for S*, but everything else in C is; and had EA been acceptable for S*, then by S*'s lights, SC would have been acceptable for S*;

(c4) SC and EA and TR are not acceptable for S*, but everything else in C is; and had SC and E been acceptable for S*, then by S*'s lights, TR would have been acceptable for S*;

(c5) SC and EA and TR and LO and M are not acceptable for S*, but had SC, EA, and TR

been acceptable for S*, then by S*'s lights, LO and M would have been acceptable for S*.[36] Viewed from C*, (c1)–(c5) are increasingly weaker cases of knowledge ascription. The upshot of these distinctions is that if we make states of knowledge in a context dependent of true knowledge ascriptions being located in a different and better context (which is, I think, very often the case), then we get a fine-grained structure of knowledge states consisting of c-knowledge, c1-knowledge (=b-knowledge), c2 – c5 – kinds of knowledge, and a-knowledge.

Mild epistemological contextualism implies not only a distinction between different kinds of context-dependent knowledge, but also

(a) a notion of better or worse epistemic contexts, and

(b) a notion of ideal perfect knowledge.[37]

Point (a) requires, of course, to adopt some sort of universal standard of some sort of universal rationality from which we are able to evaluate which context may be better or worse than some other context. Form a contextualist point of view this may be a problematic assumption. I cannot discuss this question here, but I want at least to indicate that Davidson´s conception of rationality may be helpful here, since it makes room for contextual differences of a basically universal rationality.

Point (b), however, needs some elaboration. Epistemological contextualists should be able to talk about the truth of beliefs independently of their justification and context. Knowledge may be context-sensitive, but truth does not seem to be context-sensitive. Epistemological contextualists are interested in cases in which S knows that p in context C and does not know that p in context C*, but at the same time truly believes that p in context C *and* in context C*. So even if S only a-knows or b-knows that p, S must truly believe that p. But what notion of truth is operative here? Epistemological contextualists are silent about this question. At least they have to rely on the weak disquotational notion of truth. One of the basic insights we can get from Davidson's theory of meaning is that while truth is to be introduced in a disquotational and language-relative form, it must at the same time be preserved in all translations into other languages. Since languages are parts of contexts and often vary with contexts, epistemological contextualists need an *extended disquotational notion of truth* (in short *EDN-truth*).

EDN-truth: *p* is *EDN-true* in language L iff (a) p is the case, and (b) for any sentence *q* in language L* such that *q* is an adequate translation of *p,* q is the case.

This notion of truth is not verificationist, but it does have a sort of epistemological background insofar as it relies on an empirically confirmed interpretation theory that determines which translations are adequate. EDN-truth is a mild form of a contextualized notion of truth that should be part of mild epistemological contextualism.

To turn now to the notion of perfect knowledge (c-knowledge) that is also part of a mild epistemological contextualism, the key to this notion is the idea, expressed for instance by Lewis, that perfect knowledge is knowledge that is acceptable in a context and survives new shifts of context – only that it is the shift to *all better* contexts that perfect knowledge must be supposed to be able to survive. We can restate this idea as follows:

Perfect knowledge: Let person S be in context C and have belief b; then b is *perfect (ideal) knowledge* iff

(a) b is EDN-true,

(b) b is justified according to <L, SC, EA, LO, M, TR, EI>) in C,

(c) for every context C* better than C and every competent speaker S* in C* it is the case that all parameters of C (see (b)) are acceptable for S*.[38]

(d) According to (c), perfect knowledge can be called *superjustifiable.*

It can now be stated in which way mild epistemological contextualism can be correlated with the traditional JTB-account of knowledge such that this account can do justice to contextualist intuitions:

Contextualist JTB-account of perfect knowledge: Perfect knowledge is EDN-true superjustifiable belief.

Veritistic approaches to social epistemology and the problem of relativism

Veritistic social epistemology proceeds from the assumption that mental states display correctness conditions and are therefore correct-or-incorrect (in specific cases true-or-false). Furthermore, in a certain sense the JTB-account of knowledge is, as we have just seen, still part of the picture. At the same time, this approach is a sort of epistemological contextualism. That is to say, while having correctness conditions is taken to be an objective property of mental states and the JTB-account of knowledge is taken to be a definition of knowledge that holds universally the procedures of determining and verifying whether a given claim to knowledge is correct or not is seen as heavily context-dependent, i.e. relative to specific epistemic contexts. This epistemological relativism[39] relies, among other things, on the following four premises:

(a) Epistemic contexts are not better or worse, but are epistemologically on a par.

(b) Perceptive reaction might be in some cases universal among human beings, but are physiological states outside of the space of reasons and can therefore not belong to reasons justifying claims to knowledge.

(c) Linguistic observation reports do belong to reasons justifying claims to knowledge but are, concerning their truth-value, dependent on specific epistemic contexts.

(d) Epistemological foundationalism is wrong, since there is no neutral (context-, language- and theory-independent) epistemic foundation for all kinds of knowledge.

As indicated above, premise (a) is doubtful. Claim (d), while being crucial for epistemological contextualism and epistemological relativism, does not seem to be an independent premise, since it follows from (b) and (c). On the other hand, (b) and (c), taken together, create the so called McDowell-problem and must therefore be examined in some more detail. A solution of the McDowell-problem is required for clarifying the relation between epistemological relativism.

Here is a brief version of *McDowell's problem*:

(a) The following assumptions seem to be compelling:

(i) The idea that our thinking is representational, i.e. correct-or-incorrect, implies that our thinking is answerable to the empirical world, viz. to empirical experience.

(ii) Minimal empiricism: Empirical experience constitutes a tribunal for justifying our representational thinking about the world.

(iii) Justification operates in the space of reasons.

(iv) Empirical experiences including perceptions are natural phenomena belonging to the realm of nature.

(b) Assumptions (i)–(iv) in (a) are inconsistent. For if (iii) and (iv) are true, then (i) and (ii) cannot be correct. That is to say, the truth of (iii) und (iv) makes it impossible to see that minimal empiricism is acceptable and that our thinking is answerable to the empirical world.[40]

The solution of this problem McDowell himself suggests relies basically on the old idea that our perceptions (being the core of empirical experience) are language – laden and can in this way belong to the space of reasons. So it is, according to McDowell, not perception, but our linguistic reports of perceptive states that constitute the empirical tribunal for our thinking about the world.

This is not an entirely new idea, though, and it does not get us want we need. For we need to see that perceptions themselves, not perception reports, can provide an empirical tribunal for our thinking about the word. That is, we must be able to see that perceptions, not only perception reports, may belong to a sort of space of reasons. This intuition has been an intellectual taboo in modern philosophy – at least since Kant published the *Critique of Pure Reason.* But modern cognitive psychology of perception shows that this intuition is correct.

The *general psychological picture of the processing of distal stimuli leading to conscious perceptions* consists of a number of different stages:

(1) There exists an external world consisting of objects and events having certain properties

(minimal realism).

(2) Due to their properties, these objects and event generate distal stimuli (for instance photons or sound waves with certain frequencies) such that the properties of the objects and events can be mapped into the properties of the distal stimuli.

(3) In the visual case (which serves in the following steps as example), the distal stimuli are transformed into an inverted image on the retina (this goes also, for instance, for audition).

(4) The retina contains photoreceptor cells that transform the image (that maps the properties of the distal stimuli) into electrical signals (proximate stimuli) in the nervous system such that the properties of the distal stimuli can be mapped into the properties of the proximate stimuli (so called transduction).

(5) Through a series of interconnected neurons that are located throughout the body, electrical signals are propagated from the receptors cells to the brain (so called transmission).

(6) The brain transforms the proximate stimuli (that is, the electrical signals) into perceptions specifying the semantic content of the perception (must still be seen as a sort of wonder).

(7) Part of this process is an analysis of properties and a formation of separate perceptive objects and events relying on psychological grouping mechanisms.[41] The resulting perceptions and emotions are representational states displaying sublinguistic semantic content and thus, correctness conditions.[42]

(8) The neural processing of distal stimuli has been (as is shown by teleosemantic approaches)[43] developed under evolutionary conditions and has therefore been sufficiently tested.

This picture makes room for some important assumptions:

(a) We can distinguish between two kinds of justification:

(i) X *rationally justifies* Y iff X and Y are propositionally contenful mental states or sentences and X is a good reason for Y or X even logically implies Y.

(ii) X *broadly justifies* Y if X is a reliable test procedure for Y.

(b) We can distinguish between two kinds of spaces of reason:

For every X and Y,

(i) the *logical space of reasons* consists of all elements X and Y such that X logically justifies Y or vice versa;

(ii) the *broad space of reasons* consists of all elements X and Y such that X broadly justifies Y or vice versa.

(c) Perceptions

(i) are representations (that is, are semantically contentful),

(ii) are mostly reliable and correct, and

(iii) do not belong to the realm of nature, but to the broad space of reasons.

From (c) (iii) it follows that assumption (iv) that is part of generating McDowell's problem is wrong, which makes the assumptions (i) – (iv) that are supposed to generate McDowell's problem consistent.[44]

More importantly, it follows also that perceptions can broadly justify linguistic observation reports that can, in turn, be used to verify or falsify scientific hypotheses. Most epistemological contextualists are inclined to object that even if the picture outlined so far is acceptable, linguistic descriptions of perceptions are formulated in specific languages that are part of different epistemic contexts. However, if one proceeds from a broadly Davidsonian picture of natural languages (as I do) and is impressed by Davidson's arguments against the possibility of conceptual schemes (as I am), then this objection is wrong. For then it follows that languages, while being parts of epistemic contexts, cannot alone by themselves create different epistemic contexts because there are no languages that cannot be translated into other languages.

All in all, then, we are entitled to assume a perceptual foundation for all other kinds of knowledge and so stick to a version of epistemological foundationalism. This means, among other things, that the ideas that our thinking is representational, that, furthermore, minimal empiricism is true, and that, finally, we must distinguish between the spaces of reason and the realm of nature, are consistent. Henceforth, McDowell's problem disappears.

Do these conclusions make epistemological contextualism and epistemological relativism completely obsolete? These conclusions certainly do not exclude mild epistemological contextualism. This is because, as we have seen, epistemic contexts do not consist only of observation reports and languages, but contain a number of further ingredients that can, and will, vary historically and culturally from context to context. It must be emphasized, though, that it is only a restricted epistemological relativism (restricted by the existence of a perceptive foundation of knowledge) that is part of mild epistemological contextualism. This goes for theories of cultures of knowledge too. It seems to me that the contextualist JTB-account of perfect knowledge outlined in section 9 above articulates a possible compromise between mild epistemological contextualism and epistemological foundationalism.

Notes

[1] See David Lewis' remarks at the beginning of D. LEWIS, *Elusive Knowledge,* in: «Australasian Journal of Philosophy», vol. LXXIV, n. 4, 1996, pp. 549-567.

[2] See P. UNGER, *A Defense of Skepticism*, in: «Philosophical Review», vol. LXXX, n. 2, 1971, pp. 198-219; P. UNGER, *The Cone Model of Knowledge*, in: «Philosophical Topics», vol. XIV, n. 1, 1986, pp. 125-178; P. UNGER, *Philosophical Relativity,* Minnesota University Press, Minneapolis 1984.

[3] See M. WILLIAMS, *Unnatural Doubts. Epistemological Realism and the Basis of Scepticism*, Oxford University Press, Oxford 1991.

[4] See D.B. ANNIS, *A Contextualist Theory of Epistemic Justification*, in: «American Philosophical Quarterly», vol. XV, n. 3, 1978, pp. 213-219.

[5] See S. COHEN, *Knowledge, Context, and Social Standards,* in: «Synthese», vol. LXXII, n. 1, 1987, pp. 3-26.

[6] See A. GOLDMAN, *Discrimination and Perceptual Knowledge*, in: «The Journal of Philosophy», vol. LXXIII, n. 20, 1976, pp. 771-791; F. DRETSKE, *The Pragmatic Dimension of Knowledge*, in: «Philosophical Studies», vol. XL, n. 3, 1981, pp. 363-378.

[7] See D. LEWIS, *Elusive Knowledge,* cit.

[8] This semantic way of clarifying epistemological contextualism is the essential contribution we owe to DeRose. See K. DEROSE, *Contextualism and Knowledge Attributions*, in: «Philosophy and Phenomenological Research», vol. LII, n. 4, 1992, pp. 913-929; K. DEROSE, *Solving the Skeptical Problem*, in: «The Philosophical Review», vol. CIV, n. 1, 1995, pp. 1-52.

[9] As Schiffer does, see S. SCHIFFER, *Contextual Solutions to Scepticism*, in: «Proceedings of the Aristotelian Society», vol. XCVI, 1997, pp. 317-333, here p. 318f.

[10] The claim that there are contexts that promote knowledge more or less well is also defended in social theories of knowledge that call contexts *social factors* (which include methods, standards, and a lot of more things). The most sophisticated social theory of knowledge is in A. GOLDMAN, *Knowledge in a Social World*, Oxford 1999.

[11] S. COHEN, *Knowledge, Context, and Social Standards*, cit., p. 3.

[12] D. LEWIS, *Elusive Knowledge*, cit., p. 562f.

[13] See I. HACKING, *The Social Construction of What?*, Harvard University Press, Cambridge (MA) 2000.

[14] For an important historical case see S. SHAPIN, S. SHEFFER, *Leviathan and the Air Pump. Hobbes, Boyle, and the Experimental Life*, Princeton University Press, Princeton 1985.

[15] See D. BLOOR, *Knowledge and Social Imagery* (1976), Chicago University Press, Chicago 1992; K. KNORR CETINA, *The Manufacture of Knowledge: An Essay on the Constructivist and Contexualist Nature of Science,* Pergamon, Oxford 1981; B. LATOUR, S. WOOLGAR, *Laboratory Life. The Construction of Scientific Facts,* Princeton University Press, Princeton 1986.

[16] See M. KUSCH, *Knowledge by Agreement. The Programme of Communitarian Epistemology*, Oxford University Press, Oxford 2002; D. BLOOR, B. BARNES, J. HENRY, *Scientific Knowledge: A Sociological Analysis*, Continuum, Chicago 1996.

[17] See B. LATOUR, S. WOOLGAR, *Laboratory Life*, cit.; B. LATOUR, *Science in Action. How to Follow Scientists and Engineers Through Society*, Harvard University Press, Cambridge (MA) 1987.

[18] The actor-network theory shares a number of basic assumptions with social constructivism as conceived in the Edinburgh school. Thus, both approaches entertain a naturalistic account of scientific practices, do not presuppose a distinction between true or successful and false or unsuccess-

ful scientific beliefs, and reject the possibility of a rational reconstruction of scientific practices and their outcomes. This is sometimes declared the end of knowledge (S. FULLER, *Social Epistemology*, Indiana University Press, Bloomington 1988; S. FULLER, *Philosophy, Rhetoric, and the End of Knowledge.The Coming of Science and Technology*, Winsconsin University Press, Madison 1993).

[19] B. BARNES, D. BLOOR, *Relativism, Rationalism, and the Sociology of Knowledge*, in: M. HOLLIS, S. LUKES (eds.), *Rationality and Relativism*, The MIT Press, Cambridge (MA) 1982, pp. 21-47, here p. 27.

[20] See A. GOLDMAN, *Epistemics: The Regulative Theory of Cognition*, in: «The Journal of Philosophy», vol. LXXV, n. 10, 1978, pp. 509-523; A. GOLDMAN, *Foundations of Social Epistemics*, in: «Synthese», vol. LXXIII, n. 1, 1987, pp. 109-144; A. GOLDMAN, *Knowledge in a Social World*, cit.

[21] A. GOLDMAN, J. COX, *Speech, Truth, and the Free Market for Ideas*, in: «Legal Theory», vol. II, n. 1, 1996, pp. 1-32; A. GOLDMAN, *Social Epistemology* (2001), in: E. ZALTA (ed.), *Stanford Encyclopedia of Philosophy*, updated version 2006 URL http://
http://plato.stanford.edu/archives/sum2010/entries/epistemology-social; S. FULLER, *Social Epistemology*, cit.; F. SCHMITT, *Socializing Epistemology: An Introduction through Two Sample Issues*, in: F. SCHMITT (ed.), *Socializing Epistemology. The Social Dimensions of Knowledge*, Rowman & Littelfield, Lanham (MD) 1994, pp. 1-28.

[22] P. KITCHER, *The Division of Cognitive Labor*, in: «The Journal of Philosophy», vol. LXXXVII, n. 1, 1990, pp. 5-22; P. THAGARD, *Collaborative Knowledge*, in: «Noûs», vol. XXXI, n. 2, 1997, pp. 242-261.

[23] See P. KITCHER, *The Advancement of Science. Science without Legend, Objectivity without Illusions*, Oxford University Press, Oxford-New York 1993.

[24] See C. COADIE, *Testimony. A Philosophical Study*, Oxford University Press, Oxford 1992; E. FRICKER, *Telling and Trusting: Reductionism and Anti-Reductionism in the Epistemology of Testimony*, in: «Mind», vol. CIV, n. 414, 1995, pp. 393-411; E. FRICKER, *Rational Authority and Social Power: Towards a Truly Social Epistemology*, in: «Proceedings of the Aristotelian Society», vol. CXCII, 1998, pp. 159-177; A. GOLDMAN, *Experts: Which Ones Should You Trust?*, in: «Philosophy and Phenomenological Research», vol. LXIII, n. 1, 2001, pp. 85-110; J. LACKEY, *It Takes Two to Tango: Beyond Reductionism and Non-Reductionism. The Epistemology of Testimony*, in: J. LACKEY, E. SOSA (eds.), *The Epistemology of Testimony*, Oxford University Press, Oxford-New York 2006, pp. 160-191; P. PETTIT, *When to Defer to Majority Testimony — and When Not*, in: «Analysis», vol. LXVI, n. 291, 2006, pp. 179-187.

[25] See H. LONGINO, *Science as Social Knowledge. Values and Objectivity in Scientific Inquiry*, Princeton University Press, Princeton 1990; H. LONGINO, *The Fate of Knowledge*, Princeton University Press, Princeton 2002.

[26] See R. POSNER, *Kultur als Zeichensystem. Zur semiotischen Explikation kulturwissenschaftlicher Grundbegriffe*, in: A. ASSMANN, D. HARTH (eds.), *Kultur als Lebenswelt und Monument*, Fischer, Frankfurt a.M. 1991, pp. 37-74.

[27] See C. GEERTZ, *Thick Description. Toward an Interpretative Theory of Culture*, in: C. GEERTZ, *The Interpretation of Cultures. Selected Essays*, Hutchinson, London 1975, pp. 3-30.

[28] See L. KÄSER, *Fremde Kulturen. Eine Einführung in die Ethnologie*, Erlanger Verlag, Bad Liebenzell 1997.

[29] See M. FOUCAULT, *L'archéologie de savoir,* Gallimard, Paris 1969.

[30] See M. VOGEL, *Kultur, Medien*, in: S. DIETZ, T. SKANDRIES (eds.), *Mediale Markierungen. Studien zur Anatomie medienkultureller Praktiken*, Transcript, Bielefeld 2007, pp. 45-82.

[31] Following the work of authors like Sellars, McDowell and Brandom the space of reasons is distinguished from the realm of nature to indicate that mental states are not just natural states belonging to the realm of nature (see, e.g., R. BRANDOM, *Knowledge and the Social Articulation of the Space of Reasons,* in: «Philosophy and Phenomenological Research», vol. LV, n. 4, 1995, pp. 895-908; J. MCDOWELL, *Knowledge and the Internal*, in: «Philosophy and Phenomenological Research», vol. LV, n. 4, 1995, pp. 877-893).

[32] See also A. PICKERING, *Science as Cultural Practice*, Chicago University Press, Chicago 1992.

[33] See W. DETEL, *Wissenskultur*, in: R. SCHÜTZEICHEL (Hrsg.), *Handbuch Wissenssoziologie und Wissensforschung*, UVK, Konstanz 2007, pp. 670-679; J. FRIED, M. STOLLEIS (Hrsg.), *Wissenskulturen. Über die Erzeugung und Weitergabe von Wissen*, Campus Verlag, Frankfurt a.M. 2009.

[34] Similarly, it is possible to treat human beings politically as physical things, for instance as mere instruments or as things belonging to the property of masters.

[35] X in C is *acceptable* for S* in better C* if either X is valid in C* too or C is not valid in C*, but there is a X* in C* that can be substituted for X to justify b. So if X in C is not acceptable for S* in better C*, X is not valid in C* and cannot be substituted by an X* in C* either in attempts to justify b.

[36] The way these different states are described here relies heavily on the claim that some context parameters depend on others, i.e. that context parameters are not completely independent of each other.

[37] See points (i)–(iii) in section 4

[38] It should be noted that the notion of acceptance used in K(c) is the one explained in footnote 33 (see *supra*).

[39] See B. BARNES, D. BLOOR, *Relativism, Rationalism, and the Sociology of Knowledge*, cit.

[40] See J. MCDOWELL, *Mind and World*, Harvard University Press, Cambridge (MA) 1996, pp. xi-xvii.

[41] See J. ANDERSON, *Kognitive Psychologie*, Spectrum Verlag, Berlin-Heidelberg 2007. For a full blown psychological theory of perception see D. MARR, *Vision. A Computational Investigation into the Human Representation and Processing of Visual Information*, Freeman, San Francisco 1982.

[42] In recent times a detailed semantics for sublinguistic entities like perceptions (called *teleosemantics)* has been worked out, see R. MILLIKAN, *Language, Truth, and Other Biological Categories*, The MIT Press, Cambridge (MA) 1984.

[43] See *supra*, fn. 40.

[44] Compare *supra*, p. 51.