"Indirect" Information: The Debate on Testimony in Social Epistemology and Its Role in the Game of "Giving and Asking for Reasons"

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Abstract: We will sketch the debate on testimony in social epistemology by reference to the contemporary debate on reductionism/anti-reductionism, communitarian epistemology and inferentialism. Testimony is a fundamental source of knowledge we share and it is worthy to be considered in the ambit of a dialogical perspective, which requires a description of a formal structure, which entails deontic statuses and deontic attitudes. In particular, we will argue for a social reformulation of the "space of reasons", which establishes a fruitful relationship with the epistemological view of Wilfrid Sellars.

Keywords: testimony; justification; commitment; entitlement; speech act

1. Introduction

Traditional epistemology mostly rests on the cognitive agent, on his/her doxastic states and attitudes. Doxastic attitudes are a sub-species of the propositional attitudes and they give rise to categorial judgements, which concern the truth or falsity of their propositional content. A propositional attitude is right or wrong—accurate or inaccurate—insofar as it is a function of the truth-value of its propositional content. However, doxastic attitudes do not only concern the truth of a certain belief expressed in an assertion but they range over different epistemic dimensions: justified/unjustified, rational/irrational, valid/invalid [1,2].

Traditional epistemology aimed at formulating criteria to epistemically evaluate the doxastic states of individuals. Such a process was based on the correspondence between the expressed sentence and the evidence of the agent or on a reliable procedure of formation of a belief. Social epistemology includes approaches which are closer to traditional epistemology and others which investigate concepts and strategies of justification often in contrast with it.

We can isolate different senses to characterize social epistemology. An agent can ground his/her doxastic judgment on "social evidence", where with social evidence we intend expressions, messages, or thoughts of other persons. Obviously, the evidence of the speaker mostly does not imply the evidence of others. But, there are situations in which we trust the others because for some reason we could not have evidence or direct experience ourselves. So, we can define the first branch of social epistemology, that aims at determining the epistemic quality of the doxastic attitudes of the agents starting from social evidence. In this context, we find the discussions on (a) the problem of justification based on testimony and (b) the problem of peer disagreement.

On the contrary, the second branch of social epistemology is "social" in a different sense: the doxastic agent is per se social, namely, it is a collective entity. Thus, we must concentrate on the validity of the doxastic attitudes assumed by a group or the dependency of their validity on the members of the group.

A third branch focuses on the activity of social systems, social practices, institutions or models of interaction. For example, a social system can create a model of rewards and punishments to motivate agents to engage an activity rather than another. Science as a social institution has adopted, for instance, a remunerative system that confers honors, prizes or credits to those researchers who yielded important discoveries or proved major theorems. Legal systems adopt procedures that address the guilt or innocence of the parts to be defended. We can choose procedures according to the way in which they generate the formation of highly reliable judgements. But, how often do the adopted procedures generate accurate judgments? How can we compare them with other systems? How much can a system like science motivate scientists to engage in fruitful investigations which produce new knowledge? The task of the third branch of social epistemology is therefore to determine the consequences of the adoption of certain institutional devices or systemic relations as opposed to alternatives.

The present contribution focuses on the first branch and, in particular, on the problem of testimony by reference to several important perspectives of the ongoing debate.

2. Reductionism vs. Anti-reductionism

Traditional epistemology rests on sources of information and knowledge such as perception, memory, ways of reasoning etc. In social epistemology, we find the primacy of an "indirect" form of information and knowledge, namely "testimony": a justified belief can be acquired by hearing what others say or write. A classical distinction concerns, therefore, "direct" or "indirect" forms of information and knowledge. Hume maintained that testimony is an indirect source of knowledge, as even though we generally trust what others say, we are authorized to trust them by virtue of what we have learned by using direct forms of knowledge. Everyone can remember occasions in which we are told things that we have verified independently (by perception) or we have recognized as true. Verification through what we remember makes testimony reliable because we can inductively infer that testimony is generally reliable. Consequently, we conclude that every new instance of testimony can be true, assuming that we do not have contrary proofs. According to James Van Cleve [3,4]:

> "Testimony gives us justified belief . . . not because it shines by its own light, but because it has often been revealed true by our other lights".

This type of testimony is called "reductionism", as it reduces the force of justification to the combined forces of perception, memory and inductive inference. More precisely, this form of justification is called "global reductionism", because it allows the auditors to be justified to believe a peculiar example of testimony through the inferential reference to the general reliability of testimony. C.A.J. Coady [5] criticized global reductionism by observing that the basis of observation of common epistemic agents is too limited to permit the induction about the general reliability of testimony.

An alternative to global reductionism is "local reductionism" [6], which does not require an auditor to be justified to believe that testimony is reliable. It only requires that the speaker responsible for the testimony would be reliable and sincere about the dealt topic. We can observe that this is a weaker and simpler requisite to be satisfied in comparison with global reductionism. But, also local reductionism could be too strong for different reasons. Could a speaker S be reliable for the hearer H only if she has positive evidence for the reliability of S? This result is controversial. For example, if I am at the airport or at the train station and I hear a public announcement of the exit or the rail of my departure, am I justified to believe the testimony only if I have evidence about the reliability of the person who made the announcement? Standardly, we trust public announcements made in suitable contexts.

Another view about testimony is the "anti-reductionism" (Coady, Burge, Foley). Anti-reductionism maintains that testimony is per se a primary source of evidence or justification. According to Tyler Burge [7]:

"(A) person is entitled to accept as true something that is presented as true and that is intelligible to him unless there are stronger reasons not to do so".

According to anti-reductionism, we can introduce a weaker condition, namely that the hearer would not have evidence that could affect the testimony. As we have seen, because this requirement is too weak, some authors think that we need to test the reliability and sincerity of the speaker. But, Lackey has raised doubts about the validity of such requirements. Let us suppose that Sam sees an alien creature in the wood which throws something like a diary written in a language that appears to be English. Sam does not have evidence about both the sincerity and reliability of the alien as a witness and he lacks reasons to trust or not trust the content of the diary.

A third interesting view about testimony is the "interpersonal" approach, that rejects the requirements introduced by reductionism and anti-reductionism (Ross, Hinchman, Moran, Faulkner, Fricker, Zagzebski). In this case, testimony is valid by virtue of the fact that it is a "warranty" by its nature. In this case, justification via testimony derives from the fact that the speaker assumes responsibility for the truth of her assertion (Moran) or invites the hearer to trust her (Hinchman). Lackey criticizes the interpersonal view because the fact that a speaker invites us to trust him does not provide a distinct type of reasons to accept his testimony. The nature of these reasons is not clear; they can be epistemic reasons rather than ethical or prudential ones.

3. Testimony and Trust

In order to sketch "communitarian", it is important to analyze the notion of "evidence" which is a central notion in the philosophy of science and sociology of scientific knowledge. John Hardwig criticized the "individualist" conception of evidence, according to which we can have good reasons to believe "that p" if we have evidence to support it and evidence is "anything that counts toward establishing the truth of p (i.e., sound arguments as well as factual argumentation" [8] (p. 337). But, suppose that the doctor I trust told me that I have been suffering for many years from a rare illness of my foot. He has good reasons for the diagnosis because, due to his experience, he can formulate a reliable judgement by studying the radiographies of my foot and my way of walking. I can be skeptical about this conclusion, because, for example, I feel no pain. Still, I have good reasons to believe my doctor's judgement. But, do my reasons represent evidence for the truth of the diagnosis? According to individualism, the response is negative because my reasons to believe the diagnosis do not correspond to the ones of my doctor. The good reasons for my doctor are not sufficient to establish a relationship of trust. They do not become stronger after the expression of the diagnosis. But, according to Hardwig, the "narrow" conception of evidence conflicts with common sense. We must introduce a "wider" notion of evidence. Standardly, we trust what our doctor says and therefore our reasons correspond to his reasons. We normally refer to knowledge of experts and in ordinary life, it would be irrational to do otherwise, as we are not able to check the truth and accuracy of the testimony. Sometimes, we test the credentials of the experts when they conflict with their colleagues. However, we are not obliged to use always our own head.

Hardwig extends the authority of testimony to knowledge in general (i.e., it does not concern only the "rational belief") [9]:

"belief based on testimony is often epistemically superior to belief based on entirely direct, non-testimonial evidence. For (one person) b's reasons for believing p will often be epistemically better than any other person would/could come up with on her own. If the best reasons for believing p are sometimes primarily testimonial reasons if knowing requires having the best reasons for believing, and if p can be known, then knowledge will also sometimes rest on testimony".

This thesis is supported by arguments from scientific practice. Scientists form routinely "teams" on the basis of testimony and trust. Hardwig gives the example of a physicists' team working on high energy in the first 80 years [8] (p. 347):

"After it was funded, about 50 man/years were spent making the equipment needed and the necessary improvements to the Stanford Linear Accelerator. The approximately 50 physicists worked perhaps 50 mann/years collecting the data for the experiment. When the data were in, the experimenters divided into five geographical groups to analyze the data, a process which involved looking at 2,5 million pictures, making measurements on 300,000 interesting events, and running the results through computers . . . The "West Coast Group" that analyzed about a third of the data included 40 physicists and technicians who spent about 60 man/years on their analysis".

The research has been published in an article from 99 co-authors, some of them will never know how it reached such number. To produce the data for such an article presupposes that scientists exchange information and that they consider the results from the others as evidence for the ongoing measurements. It is not possible to do otherwise. None of the Physicists could replace his knowledge by testimony with knowledge based on perception: it would require too much lifetime. This type of "epistemic dependence" is visible also in mathematics, for instance in the De Branges' proof of the Bieberbach's conjecture; a proof that involved mathematicians with very different forms of specialization.

Starting from Hardwig's work, Martin Kusch isolates three epistemological alternatives:

1. "Strong individualism" according to which knowledge presupposes individual sources of evidence.
2. "Weak individualism" according to which it is not necessary to possess evidence for the truth of what one believes and to completely understand what one knows.
3. "Communitarianism" according to which community is the primary source of knowledge. It retains the idea that an agent would have "direct" possession of the evidence, but it breaks with the assumption that such an agent would or could be an individual.

Hardwig could be considered as a communitarian not only regarding epistemology but also philosophy in general. Testimony occupies a space where epistemology meets ethics. If a certain result by an expert provides good reasons to believe that p, it will depend on the perception of the receiver about the reliability of the testimony of the expert, that for its part will depend on an evaluation of her character. Hardwig's work on teams and trust in scientific practice has influenced relevant authors in the field of social epistemology (Galison, Knorr Cetina, Shaffer, Shapin e Mackenzie). Kusch underscores two limitations of his approach. First, Hardwig privileges scientific communities, so he does not consider cases of cooperation in ordinary life where testimony plays a crucial role, indeed we trust a lot of public messages without investigating the sincerity and the competence of the source. Second, the way in which Hardwig refers to the evidence of a true belief is not very clear. Beyond individualism, there is an explanation either of the nature of the evidence possessed by the teams or of the process through which we can proceed to a true belief.

4. Testimony, Community and Performatives

Michael Welbourne wrote the book *The Community of Knowledge* [10], that represents a valid example of communitarian epistemology based on testimony. He makes a fundamental theoretical move; he considers testimony not as "mere transmission of information" (the so called "say so" which characterizes classical epistemology). Knowledge takes place in a community where it is transmitted according to a certain view of "shared knowledge". To share knowledge means to share commitments and entitlements with others. His theory of "authority" conflicts with the theory of evidence. We do not have direct evidence for knowledge, because entitlements imply anything can serve as the ground for our inferences. Knowledge must be objective and so "social" because we consider it as an external and objective standard for what also others should recognize. Commitments we undertake entail an investigation on the entitlements of the others; therefore we create a dialogical dynamic that generates new shared knowledge. Kush makes an example to clarify this dynamics [11] (p. 60):

> "Assume that I claim to know how long it takes to travel from Cambridge to Edinburgh; I tell you, and you believe me and tell me so. In doing so, we agree that we should not consent to anyone who suggest a different travel period, that we shall inform each other in case it turns out that we did not possess knowledge after all, that we shall let this information figure in an unchallenged way in travel plans, and so on. We can perhaps go beyond Welbourne by saying that the sharing of knowledge creates a new subject of knowledge: the community. And, once the community is constituted, it is epistemically a priori to the individual member. This is so since the individual community member's entitlement and commitment to claiming this knowledge is derived from the membership in this community. The individual knows as "one of us", in a way similar to know how I get married as "one of a couple", or I play football as "one of the team".

The greatest limit of Welbourne's view is, according to Kusch, that he does not consider the normative ground of testimony, namely the background knowledge. This background represents what agents concretely share and encloses the important results of previous communities of knowledge from which we inherit them. So. it would be possible to go beyond the dialogical exchange of reasons starting from commitments and entitlements and to proceed on knowledge constituted by testimony through a sort of "institutionalization". In this case, we need a theory of social institutions and social states based on the use of the so-called "performatives" (Austin). The major referents for social epistemology in this context are John Searle, Barry Barnes and David Bloor. But, we recall also the work of Kent Bach, Esa Ikonen, Eerik Lagerspetz and Raimo Tuomela.

Performative testimony moves from the actions we perform by saying anything and from how it is received by our interlocutor. It is not a matter of the simple "say so" or mere transmission but a process of social construction. A performative testimony does not allow us to consider a state of affairs p, reference and knowledge as discrete, sequential and independent events. For example [11] (pp. 65–66):

> "The registrar a tells the couple b that they have now entered in a legally binding relationship of marriage; and by telling them so, and their understanding of what he tells them, the registrar makes it so that they are in a legally binding relationship of marriage. For the registrar's action to succeed, the couple has to know that they are being married through his say-so, and he has to know that his action of telling does have this effect. Moreover, a and b form a community of knowledge in so far as their jointly knowing that p is essential for p to obtain. That is to say, a and b enter into a nexus of entitlements and commitments, and it is this nexus that makes it so that each one of them is entitled to claim that p. The registrar has to use certain formulas (By the power invested in me by the state of California . . . ecc.) bride and groom have to confine themselves to certain expressions (a simple "yes" or "no" will be fine), and each one commits himself or herself, and entitles the other, to refer to p as a fact subsequently. More principally, we can say that "getting married" is an action that is primarily performed by a "we".

The new social state and the knowledge the couple shares are generated by performative testimony, namely by the speech act performed by the adequate authority. The reasons why performative testimony generates knowledge reside in two important characteristics of performatives: self-referentiality and self-validity [12]. The act refers to itself because it announces what it will do and, if performed under the right circumstances, it generates the validity of the reality it creates. The act that creates the new social situation is like a common act performed through the agreement among persons. This act is fragmented and distributed on other speech acts, it is implicit in ordinary practices, like when we greet, we talk about greeting the colleagues we meet or we criticize someone who did not respond to our greeting. All these acts are for the major part performatives or include a shared performative. This observation is fundamental for social epistemology as it mostly realizes through performatives that are shared and widely distributed. Kusch observes that knowledge is a social state

constituted by a shared performative (a declaration that there exists a unique way to possess truth and we call it "knowledge"). Knowledge is a social referent created by the references to it; these references occur in testimony like in other forms of dialogue. Dialogue includes asserting that something is knowledge, challenging knowledge, testing knowledge, doubting and so on within a wide range of possible references. Testimony can obtain the status of knowledge because we make direct and indirect reference to it through numerous examples of constative and performative testimony. This direct and indirect reference creates knowledge as a social state.

5. Testimony and "Scorekeeping"

According to Kush, knowledge is a matter of consensus and this theoretical option characterizes his communitarianism. Let me conclude by pointing out a very interesting perspective among the communitarian views, which resembles the game of commitments and entitlements introduced by Welbourne: the "scorekeeping" model proposed by Robert Brandom [13–16]. Brandom does not refer to knowledge by agreement and Kusch criticized his perspective [11] (pp. 256–259). Differently, Brandom refers to the structure of the concepts we learn to use by using language. Following Sellars, he uses the metaphor of the "space of reasons", but he understands it as a "social concept", i.e., as the space of the intersubjective justification of our assertions. Reasons contained in assertions possess a content that is inferentially structured. From the point of view of social epistemology, beliefs, mental states, attitudes and actions possess content because of the role they play in social "normative practices". Rather than relativism, we are here concerned with a form of perspectivism, as concepts develop and change according to the work required in the ongoing research.

According to the scorekeeping model, attention must be given not only to "modal" incompatibility but also to "normative" incompatibility, which can affect commitments we undertake in discursive practice. Modal incompatibility refers to states of affairs and properties of *objects* that are incompatible with what others and it presupposes the world as independent of the attitudes of the knowing-and-acting subjects. Normative incompatibility belongs to discursive practices on the side of the knowing-and-acting subjects. In discursive practice, the agent cannot be entitled to incompatible doxastic or practical commitments and if one finds herself in this situation one is obliged to rectify or repair the incompatibility. On the side of the object, it is impossible for it to have *incompatible* properties at the same time; on the side of the subject, it is *impermissible* to have incompatible commitments at the same time. In this sense, Brandom introduces the metaphysical categorical sortal metaconcept subject whereas it represents the conceptual functional role of *units of account for deontic normative incompatibilities*.

The scorekeeping model describes a system of social practices in which agents perform assertions that express material inferential commitments. Let's see now what are the inferential relations that agents ought to master in order for justifying their claims. Our assertions have a "sense" or are "contentful" by virtue of three dimensions of inferential social practices. To the first dimension belongs the *commitment-preserving* inference that corresponds to the material deductive inference. For example, A is to the west of B then B is to the east of A and the *entitlement preserving* inference that corresponds to inductive inference like if this thermometer is well made then it will indicate the right temperature. This dimension is structured also by *incompatibility* relations: two claims have materially incompatible contents if the commitment to the one precludes the entitlement to the other.

The second dimension concerns the distinction between the *concomitant* and the *communicative* inheritance of deontic statuses. To the concomitant inheritance corresponds the *intrapersonal* use of a claim as a premise. In this case, if a person is committed to a claim is, at the same time, committed to other concomitant claims as consequences. Correspondently, a person entitled to a commitment can be entitled to others by virtue of permissive inferential relations. Moreover, incompatibility relations imply that to undertake a commitment has as its consequence the loss of the entitlement to concomitant commitments to which one was before entitled. To the communicative inheritance corresponds the interpersonal use of a claim, because to undertake a commitment has as its "social" consequence to

entitle others to the "attribution" of that commitment. The third dimension shows the two aspects of the assertion as "endorsed": the first aspect is the "authority" to other assertions and the second aspect dependent to the first is the "responsibility" through which an assertion becomes a "reason" enabling the inheritance of entitlements in social contexts.

The entitlement to a claim can be justified (1) by giving reasons for it, or (2) by referring to the authority of another agent, or (3) by demonstrating the capacity of the agent reliably to respond to environmental stimuli. The scorekeeping model is based on a notion of entitlement that presents a structure of "default" and "challenge". This model is fundamental in order to ground a pragmatic and social model of justification, that requires the participation to the game of giving and asking for reasons. A fundamental consequence of this description is that the deontic attitudes of the interlocutors represent a perspective on the deontic states of the entire community. In this sense, knowledge is social, because it depends on an "I-Thou" structure which has consequences on the beliefs already accepted in a certain community. First, a person can make an assertion (the intercontent/infrapersonal case), for instance, she asserts "A cat can be red". She undertakes a doxastc commitment to the assertion. This commitment ought to be attributed to her by anyone who is in a position of accepting or refusing it. The sense of an assertion goes beyond the deontic attitudes of the scorekeepers because it possesses an inferentially articulated content that is in a relationship with other contents (for instance that the cat is red in a peculiar sense). If by virtue of the assertion the deontic attitudes of an interlocutor change, as she attributes to the speaker the commitment to "A cat can be red", then the interlocutor is obliged to attribute to the speaker also the commitment to the fact that the cat is red in a peculiar sense. The interlocutor recognizes the correctness of that inference when she becomes a scorekeeper and, therefore, consequentially binds two related commitments. Again, the incompatibility between "A cat can be green" and "A cat can be red" means that the commitment to the latter precludes the entitlement to the former. Then the interlocutor treats these commitments as incompatible if she is disposed to refuse attributions of entitlement to "a cat can be green" when she attributes the commitment to "A cat can be red".

In the infracontent/interpersonal case, if the interlocutor thinks that the speaker is entitled (noninferentially or inferentially) to "A cat can be red", then this can happen because the interlocutor thinks that another agent who listened to the assertion is entitled to the assertion by testimony. An interesting point is to see how the inferential and incompatibility relations among contents alter the score in conversation. First, the scorekeeper/interlocutor must include "A cat can be red" in the set of the commitments already attributed to the speaker. Second, she must include the commitment to whatever claim that is a consequence of the assertion (in committive-inferential terms) in the set of all the claims already attributed to the speaker. This step depends on the available auxiliary hypothesis in relation to other commitments already attributed to the speaker. These moves determine the closure of the attributions of the interlocutor to the speaker by virtue of the commitment-preserving inferences: starting from a prior context with a certain score, the closure is given by whatever committive-inferential role the interlocutor associates with "A cat can be red" as part of its content. Naturally, the resulting attributions of commitments must not be affected by material incompatibility (if one is committed to say that a cat can be red then is not committed to say that a cat can be green). Incompatibility limits also the entitlements attributed to the speaker. The interlocutor can attribute entitlements to whatever claim that is a consequence in permissive-inferential terms of commitments to which the speaker was already entitled. It can the case that the speaker is entitled to the assertion because she is a reliable reporter i.e., she correctly applies responsive capacities to environmental stimuli. The correctness of the inference depends here on the interlocutor's commitment, namely on the recognition of the circumstances under which the deontic status was acquired (these conditions must correspond to the ones in which the speaker is a reliable reporter of the content of the assertion). Moreover, the interlocutor can attribute the entitlement also by inheritance: reliability of another interlocutor who performed the assertion in a prior stage comes into play. Testimony, therefore, plays a relevant role for knowledge we can share. The scorekeeping model presents other kinds of

speech acts related to the assertive praxis that we can consider in the justification process (deferral, challenge and refusal).

6. Conclusions

We introduced the debate on testimony in social epistemology, which represents a central notion for those authors who establish a fruitful relationship between classical epistemology and social epistemology. This fact means that notion such as truth and justification must find a new interpretation to ground social evidence.

After a brief description of several points of view (reductionism, antireductionism, inferentialism, communitarian epistemology) we presented a plausible view for a social conception of justification based on a dialogical dynamics. The Sellarsian "space of reasons" can be oriented toward an intersubjective structure based on deontic statuses and deontic attitudes which secure the objectivity of shared knowledge. In this context, testimony is a fundamental source of knowledge, which becomes even more important in our "virtual" society. The scorekeeping model proposed by Brandom overcomes relativism because even though we have different collateral beliefs, there is the structure of an "expressive rationality" which helps the speakers to make beliefs explicit, to regiment them as validity claims and thus to maximize the chances of agreement. Also in the case of testimony, objectivity is bound to the "social" recognition of propositional contents, which are objective as they are governed by a net of commitments and entitlements namely the normative ground of discursive practice.

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