**Understanding and Transmission**

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1. INTRODUCTION

Testimony spreads information. It is also widely acknowledged that it can transfer, maybe even generate, propositional knowledge. But what about other epistemic goods? Knowledge of individual propositions is certainly very important to us. In many domains, however, we want more than just collecting knowledge about isolated items of fact. We also want to see how things hang together. We want to grasp the reason(s) why things are the way they are and not otherwise. We want to *understand* the subject matter of what we believe (Elgin, 2017; Kvanvig, 2003; L. Zagzebski, 2001).

What is the role of testimony in the process of disseminating understanding in an epistemic community? Can understanding be testimonially *transmitted* from one epistemic agent to another? These are controversial questions in the current epistemic landscape.

So-called *pessimists* about understanding transmission believe that everything testimony can do is to lay the groundwork for understanding. When a speaker tells or explains something to a hearer, she plants, so to say, the seed of understanding. Whether the seed then grows and flourishes or dries up and perishes in the soil, however, is not in the speaker’s hands; it is only up to the hearer. Understanding, or so pessimists argue, is something that the single epistemic agent must achieve by herself, by relying solely on her own faculties and reasoning abilities. It is what one might call a “solitary achievement”, i.e., an achievement to be mostly or exclusively credited to the single agent who understands (Hills, 2016; Pritchard, 2010; L. Zagzebski, 2009).

So-called *optimists* about understanding transmission, on the other hand, believe that testimony can do more than lay the groundwork for understanding. Under certain conditions, it can work as an epistemic source of understanding. Understanding, thus, is not always a solitary achievement to be mostly credited to the epistemic agent who understands. Very often, when understanding is acquired as a result of a speaker-hearer interaction, the credit for the achievement is shared between the speaker and the hearer. Sometimes it lies overwhelmingly on the speaker’s side (Boyd, 2017; Gilbertson, 2020; Grimm, 2020; Malfatti, 2020, 2021).

But exactly what is understanding? What does it mean to understand, e.g., a phenomenon or domain? There is no agreement in the literature on how these questions should be answered (for an overview of the debate, see Hannon, 2021). In what follows, I sketch a model of understanding that could be embraced by pessimists and optimists alike (section 2). After having analyzed what it means for an epistemic good to be transmitted via testimony (section 3), I will argue that there is more room for optimism than for pessimism. Understanding, conceived along the lines I suggest, can be very probably transmitted via testimony (section 4). I conclude by showing how pessimist might resist this conclusion (section 5).

2. WHAT IS UNDERSTANDING?

Understanding is, at least typically, a *mediated* epistemic state. This means that we understand phenomena via representational systems of various nature and complexity (theories, models, explanations, stories, …) that account for these phenomena.

The representational systems involved in understanding are typically to be found in our epistemic environment. They are something that can be written down, saved on a memory stick, or drawn on paper. But they also can be incorporated into our view of reality. They can become part of our doxastic-noetic system. Actually, it is quite intuitive that understanding a phenomenon via a representational system of some sort involves some sort of *commitment* or *endorsement* to the informational units that comprise that representational system. The exact nature of this endorsement is an object of controversy. Dellsén and Elgin take it to be a form of acceptance (Dellsén, 2021; Elgin, 2017); Khalifa and Kelp take it to be a form of belief (Kelp, 2015; Khalifa, 2017). In any case, it is clear that I cannot understand a phenomenon via a representational system that I take to be utterly false, or completely off-target. If a representational system figures in my understanding of reality, this means that I take it to be a good one, or good enough for my current goals (Gordon, 2021).

To acquire understanding on the basis of a certain representational system, I must not only endorse it. I must also understand it. The representational system must be intelligible to me (De Regt, 2017). Given that I understand a representational system, I can reason well on its basis. I can use it as a basis to draw nontrivial inferences. I can appreciate consequences of it, apply it to the phenomena, and use it to formulate hypotheses about future occurrences of events. If the representational system contains explanatory information, I can draw on it to formulate explanations, and probably also to provide answers to what-if-things-were-different questions (S. R. Grimm, 2011, 2014; Hills, 2016)

There is more to understanding (phenomena), however. Suppose one endorses and understands a very imaginative but highly implausible conspiracy narrative about the origin of COVID-19. Would we say that she understands the origin of COVID-19? Probably not. The reason underlying this judgement is that the representational systems involved in understanding must not only be endorsed, but also be *worthy of being endorsed*, in the given epistemic circumstances. A representational system worthy of being endorsed is one that, after careful evaluation of the available evidence, has turned out to be the best of the available alternatives (Elgin, 2017; Khalifa, 2017; Malfatti, 2021). In an epistemic environment in which there is a variety of empirically well-grounded theories about the origin of COVID-19 (and in which there is no reason to distrust science or scientists), it is extremely unlikely that an imaginative conspiracy narrative ends up being the winner in the set of alternatives.

A representational system that stands out in the set of available alternatives, of course, might turn out to be the best of a bad lot. Despite our best efforts, we might end up endorsing a representational system that radically misrepresents the way things are. This is the reason why it is important to introduce an “external rightness” condition for understanding (Baumberger & Brun, 2021). A representational system must answer to the facts or be tethered to reality in the appropriate way to work as a source of genuine understanding of reality. This tether involved in understanding might be spelled out in terms of truth (Grimm, 2014; Lawler, 2021; Le Bihan, 2021; Nawar, 2021; Rice, 2021) or by appealing to some other, less demanding, semantic concept (Elgin, 2017).

3. THE TRANSMISSION OF EPISTEMIC GOODS

When does an epistemic good count as testimonially *transmitted*? I suggest focusing on three features typically assumed to be characteristic of transmission: *(epistemic) trust*, *(epistemic) effort*, and *credit*.

3.1 (*Epistemic) trust*

The transmission of an epistemic good from a speaker to a hearer seems to crucially involve a certain kind of (epistemic) trust (Fricker, 2021). Consider a case involving knowledge. A speaker knows that it is raining outside and tells me this. As a result of her telling, I gaze out of the window and see that it is raining myself. I then form the corresponding belief and hereby come to know that it is raining outside. Clearly, there is no transmission of knowledge in this scenario. My newly acquired knowledge depends counterfactually, but not epistemically, upon the speaker’s telling.

Suppose, in contrast, that as a result of the knowledgeable speaker’s telling me that it is raining outside, I just form the corresponding belief. I start believing that it is raining outside on the basis of her say-so, and hereby acquire knowledge. In such a case, knowledge has arguably been transmitted from the speaker to me. What is the difference between the two cases? In the first case, I come to know by relying on my own perceptual faculties. In the second case, I come to know *by trusting* the speaker for the truth of the asserted proposition. My newly acquired knowledge depends not only counterfactually, but also epistemically, upon the speaker’s telling. I know that it is raining outside (mainly) because the speaker knows this, and because her telling is backed up by good reasons (Goldberg, 2006; Hawley, 2010; Lackey, 1999).

It should be noted here that (epistemic) trust is not an all-or-nothing matter. Rather, it admits of degrees. I can trust a speaker fully, or merely to some extent. When I trust a speaker fully, I *defer* to her word. When I defer to a speaker’s word relative to some proposition p, I not only refrain from collecting evidence relevant to p; I also disregard, or screen off my own existing reasons for and against p (Constantin & Grundmann, 2020; Keren, 2007; Zagzebski, 2012). The transmission of knowledge, and of epistemic goods in general, arguably admits of degrees as well. An epistemic good counts as more or less transmitted, or more or less grounded on testimony, depending, among other things, on the amount or degree of epistemic trust involved. Cases of full or pure transmission probably require deference, while partial or hybrid cases of transmission seem compatible with lesser degrees of trust, i.e., with some of the hearer’s existing reasons retaining their epistemic role.

2.2 (*Epistemic) effort*

The transmission of an epistemic good via testimony it usually taken to relieve the hearer from the usual burdens associated with the first-hand acquisition of the epistemic good in question (Greco, 2016, 2020). Take again the case of knowledge. When a knowledgeable speaker tells me that p and I trust her (with good reasons to do so or in the absence of reasons for distrust), I rely on the speaker’s assessment of the relevant evidence. Trusting the speaker relieves me from the burden of gathering and evaluating the evidence for and against p myself. In trusting the speaker for what she tells me, I (reasonably) assume that she has done the relevant epistemic work already. So, little *epistemic* *effort* seems to be required to acquire knowledge from a speaker who knows what she is talking about.

This does not mean, however, that the transmission of knowledge is always an easy process, a passive affair involving close to zero *cognitive* *effort* from the hearer’s side. Acquiring knowledge from a speaker can be hard and cognitively demanding for a hearer. It even sometimes requires an active “doing” from the side of the potential knower. One of the reasons is the following. We exchange words and utterances, but we believe and know contents. When a speaker tells a hearer that p, the hearer needs to make sense of what the speaker says (at least to some extent, or up to a certain threshold) to build the relevant belief and to acquire the relevant knowledge. Semantic or linguistic understanding does sometimes happen automatically, but the road from language to meanings is not always straightforward - especially when theoretical terms are involved (Malfatti, 2020; Pollock, forthcoming).

2.3 *Credit*

Suppose my trustworthy and reliable doctor knows that I have long COVID and tells me this. I take her word for it and hereby acquire knowledge. Who deserves the credit for the new knowledge that I now possess? It is very tempting to say that my doctor does. My doctor is the one who gathered and assessed the relevant evidence. She formulated the correct diagnosis. She has done the relevant epistemic work, and she has access to the reasons why the proposition that I now believe is true. When an epistemic good is transmitted via testimony, thus, the epistemic credit for the achievement seems to lie significantly, maybe overwhelmingly, on the speaker’s side.

It should be noted, however, that the credit for an epistemic good transmitted via testimony can never lie *exclusively* on the speaker’s side. As epistemic agents, we are responsible for our choice of informants. Our epistemic trust in a speaker must be grounded in a careful evaluation of the speaker’s reliability and trustworthiness (Fricker, 2006). If I had asked a random passer-by or Facebook-user instead of my doctor why I have been feeling exhausted lately, I would certainly be responsible, at least partially, for the false belief that I would (very probably) form. Similarly, if I choose my informants well, and if my epistemic trust in others is grounded in good reasons, I deserve at least some of the credit for the epistemic good that I gain (Elgin, 2017; Greco, 2020).

4. THE TRANSMISSION OF UNDERSTANDING

Can understanding be testimonially transmitted? Imagine an hypothetical interaction between Sherlock Holmes and his less brilliant colleague John Watson (the case is described in more detail in Malfatti, 2021). Holmes and Watson are trying to find out who might have killed a certain woman found dead in her apartment. Holmes evaluates the range of possible explanations and comes up with the right theory about what happened. He shares the theory with Watson. Watson understands Holmes’ theory and starts endorsing it. However, he trusts Holmes on something: on the fact that the theory contains the best possible explanation for the woman's death.

Does Watson in this thought experiment understands what happened at the crime scene? Arguably, he does. Maybe he would understand *better* had he performed the evaluation of the alternative explanatory hypotheses himself. However, all requirements for understanding seem to be met. Watson endorses and understands a representational system that adequately accounts for what happened, and that stands out in the set of available alternatives.

Does Watson’s understanding count as *transmitted*? We have seen that for an epistemic good to count as transmitted via testimony, the following must hold:

(1) the hearer must *trust* the speaker for the truth of what she asserts;

(2) there must be little *epistemic effort* involved on the hearer’s side;

(3) the *credit* for the achievement must lie significantly on the speaker’s side.

These requirements seem to be all fulfilled in the thought experiment I just described. Watson’s understanding is grounded on Holmes’ trustworthy word to a significant extent. Watson is relying on Holmes’ competence in comparing and evaluating the alternative explanatory hypotheses. The consequence of this is that Watsons understands, at least in part, because Holmes understands, and because Holmes’ reasons to endorse the theory in question are good ones. Moreover, and relatedly, Watson seems to be relieved from the usual burdens associated with the first-hand acquisition of understanding. More precisely, he is relieved from the burden of comparing and evaluating the available alternative explanatory hypotheses himself. So, little epistemic effort is involved on Watson’s side. Who deserves the credit for Watson’s understanding? It seems as if Holmes does. Holmes tracked down the correct theory about what happened; Watson had no role in this process. Holmes would be able to explain why his theory is better than and to be favored over all of its competitors; Watson would not. And yet this is not something that Watson must be able to do in this context. This is something that Watson can delegate to Holmes.

5. CONCLUSION

Pessimists about understanding transmission believe that all testimony can do is to lay the groundwork for understanding. They take understanding to be a “solitary achievement” to be always mostly credited to the epistemic agent who understands. Optimists disagree. They argue that understanding can sometimes be significantly epistemically grounded on a speaker’s trustworthy word. My analysis shows that there is more room for optimism than for pessimism.

How might pessimists reply? Pessimist could resist this conclusion by arguing that in our hypothetical scenario involving Holmes and Watson, Watson’s understanding is not sufficiently dependent on Holmes’ testimony to count as transmitted. Watson had to something to acquire his understanding: he had to understand Holmes’ *theory.* This is not something that he can delegate to Holmes. Moreover, and relatedly, Holmes does not deserve the whole credit for Watson’s understanding. Watson deserves some of the credit as well, e.g., for understanding the relevant representational system, and for having put his trust in a reliable testifier.

We have seen, however, that the transmission of epistemic goods from a speaker to a hearer is compatible with a certain amount of cognitive effort from the hearer’s side: my knowledge that p can count as testimonially transmitted even if I must actively interpret the speaker’s utterance from a semantic point of view. We have also seen that as hearers are responsible for their choice of informants, they always deserve at least some of the credit for the epistemic goods that they acquire via testimony. If we embrace such a flexible conception of transmission, the pessimists’ objection loses its strength.

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