

ARTICLE

Learning from Others' Evidence: A Focus on Non-Epistemic Values

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(Received 30 May 2025; revised 30 May 2025; accepted 4 June 2025)

Abstract

We simplify our lives by learning from others. I focus on instances where we learn from our *peers* by receiving evidence that they have evidence for a hypothesis. I refer to this type of learning as *learning from others' evidence*. I exclusively consider cases where we do not learn what the other agent's evidence is; we only receive evidence that such evidence exists. I approach learning from others' evidence by exploring the following slogan, popular in epistemology:

EEE-Slogan “[E]vidence of evidence is evidence. More carefully, evidence that there is evidence for *h* is evidence for *h*” (Feldman 2007: 208; notation adjusted).

I am interested in the limitations of the slogan, focus on the impact of non-epistemic values on it, and argue for the following *main thesis*:

Non-Epistemic Values in the EEE-Slogan: There are cases in which we cannot (adequately) apply the EEE-Slogan due to the differing non-epistemic values between us and our peers.

In arguing for the thesis, I draw on and expand insights from the philosophy of science. There are instances where our peers' reasoning, commitments, and evidence (see Douglas 2000) are not rationally acceptable to us due to differences in non-epistemic values. Building on this, I contend that in such cases, we cannot (adequately) apply the slogan.

Keywords: Division of Labour; Peers; Learning from Peers; Evidence of Evidence; Non-Epistemic Values; Evidence; Evidential Support

1. Introduction

1.1. Learning from others' evidence and the EEE-Slogan

We simplify our lives by learning from others, thereby dividing cognitive labour. Here, I focus on instances where we learn from our *peers*. When we divide cognitive labour, we can learn from others in different ways: often (i) by learning that they accept, believe, or

even know a hypothesis h or (ii) by receiving evidence¹ that they have evidence for h . In this article, I focus on learning rationally in the latter way, which I refer to as (*rationality*) *learning from others' evidence*. I assume that we receive such evidence of others' evidence via oral testimonies, printed reports, and similar sources. Furthermore, I exclusively consider cases where we do not learn what the other agent's evidence for h is; we only receive evidence that such evidence exists. Sometimes, pieces of our body of evidence remain *unrevealed*. Imagine, for instance, cases where an overwhelming amount of evidence is collected by different agents, making it impossible to convey it within a single lifetime, or where there is limited space (e.g., in scientific journals) or time to present it (e.g., in radio or television). To illustrate learning from others' evidence, consider the following example by Feldman, which is widely referred to in epistemological literature:

Criminal Case Example: "Consider [...] the example involving the two suspects in a criminal case, Lefty and Righty. Suppose now that there are two detectives investigating the case, one who has the evidence about Lefty and one who has the evidence incriminating Righty. They each justifiably believe in their man's guilt. And then each finds out that the other detective has evidence incriminating the other suspect. If things are on a par, then suspension of judgment is called for" (Feldman 2007: 208).

According to Feldman, the suspension is called for in the criminal case example because this is a case where someone receives evidence of a peer's evidence for, or in support of, h and, by receiving such evidence, receives new evidence for h . However, since one already had evidence for a competing alternative, suspension of judgment is called for. One receives such new evidence because the following slogan holds:²

EEE-Slogan "[E]vidence of evidence is evidence. More carefully, evidence that there is evidence for h is evidence for h " (Feldman 2007: 208; notation adjusted).

I aim to investigate which peers we should collaborate with and how to divide cognitive labour by learning from their evidence. I will approach this way of learning by exploring the slogan above, which is popular in epistemology. I am interested in the limitations of the (application of) the EEE-Slogan and focus on the impact of non-epistemic values on it.³ The slogan appears unproblematic at first glance. However, I present two arguments in favour of the following *main thesis* of this article:

Non-Epistemic Values in the EEE-Slogan: There are cases in which we cannot (adequately) apply the EEE-Slogan due to the differing non-epistemic values between us and our peers.

Here, I shift the epistemological discussion on the EEE-Slogan by emphasising where to focus and being wary of non-epistemic values when applying this slogan.⁴ Most, if not

¹Here, I understand *evidence* as any kind of data, sentence, or proposition reflecting the data, and *evidence-for* reflects the evidential relation, which I will discuss later.

²For a thesis similar to this slogan, see also Hardwig 1985. There isn't room here to compare the EEE-Slogan and Hardwig's account.

³See also Eder and Brössel 2019: 62–63 for a similar slogan introduction. In Eder and Brössel 2019, we consider different specifications of the EEE-Slogan without taking non-epistemic values into account. As it will become clear, my observations here, which focus on non-epistemic values' role for the slogan, are not sensitive to such particular specifications of the EEE-Slogan.

⁴This article can be seen as a complement to Wilholt's (2013) seminal article on epistemic trust in science, in which he emphasises the significance of non-epistemic values for scientific cooperation and learning from science. However, he does not focus on learning from others' evidence.

all, discussions in epistemology regarding the slogan focus on its specifications⁵ and concentrate on the evidential support relation. However, they do not take into account that non-epistemic values (e.g., cultural, ethical, moral, practical, etc.) are relevant to such a relation and, consequently, to the outcome of learning from others' evidence.⁶ Here, I focus on the significance of non-epistemic values for the general application of the slogan rather than focusing on the particular specifications of the slogan. I argue for this thesis by drawing on and expanding insights from the philosophy of science.

1.2. Plan

I proceed as follows: in Section 2, I clarify the basics. First, I characterise an agent's evidence *for* a hypothesis and an agent's evidence *of* another agent's evidence (for a hypothesis). I then present an account of an agent's epistemic state. Based on the characterisation of evidence *for* a hypothesis, evidence *of* evidence (for a hypothesis), and the account of an agent's epistemic state, I present, in Section 3, two arguments for Non-Epistemic Values in the EEE-Slogan. Each one reveals different factors to look out for when we apply this slogan. In Section 4, I summarise my findings, respond to the main line of criticism of my account, and provide an outlook for future research.

2. Evidence and epistemic states

2.1. Evidence-for and -of

Let's take a closer look at the EEE-Slogan:

EEE-Slogan: "Evidence of evidence is evidence. More carefully, evidence that there is evidence for h is evidence for h " (Feldman 2007: 208; notation adjusted).

This slogan addresses (i) evidence *for* a hypothesis and (ii) evidence *of* this evidence (for the hypothesis). It is commonly assumed that (some piece of) evidence is evidence *for*, or in support of, h just in case it increases the probability in h , or makes it rational to increase one's degree of belief in h (plus, perhaps, some further conditions).⁷ I also assume this here. Now, what is evidence *of* evidence in the present context? Since I am concerned with learning from others' evidence, I exclusively focus on evidence *of* evidence as evidence about *another agent's* evidence.⁸ That is, I understand it as interpersonal about another agent's evidence – as opposed to intrapersonal, which would concern an agent's evidence of their own evidence. The EEE-Slogan, as introduced by Feldman and as considered here, concerns (epistemic) peers.⁹ In the present context, when we ask whether evidence of evidence for h is evidence for h , we ask whether an agent s 's evidence of another agent, a peer, s^* 's evidence for h is (for s)

⁵See, e.g., Comesaña and Tal 2015, Eder and Brössel 2019, Fitelson 2012, Moretti 2016, and Tal and Comesaña 2017, to name only a few.

⁶I do not present a characterisation of what constitutes non-epistemic values. That would be taking it too far. The examples of non-epistemic values I discuss below are clear cases and sufficient to argue for the main thesis of this article.

⁷Since these further conditions won't be relevant for arguing in support of Non-Epistemic Values in the EEE-Slogan, I will omit reference to them.

⁸See also Eder and Brössel 2019.

⁹Here I understand peers in the following way, s and s^* are peers concerning a hypothesis h just in case s and s^* have roughly the same amount of evidence relevant concerning h and are equally competent in judging the evidence. I do not assume that peers have the same body of evidence.

evidence for h , i.e. whether it is rational for s to increase their probability, or degree of belief in h . To examine whether evidence of evidence for a hypothesis is evidence for the hypothesis, we need to take a closer look at the evidential support relation.

2.2. Evidential support and epistemic states

As mentioned before, evidence *for* a hypothesis is evidence supporting the hypothesis. This evidential support relation between the evidence and the hypothesis is often probabilistically understood in terms of a *single* probability function that is interpreted as a (rational) degree of belief function. In discussions regarding the specifications of the EEE-Slogan, hardly any other aspects of epistemic states are considered except for this single probability function, specifically the (rational) degree of belief function. Following Eder and Brössel (2019), I think this is too coarse-grained and does no justice to the many relevant components of an agent's epistemic state that determine their degrees of belief. An agent's epistemic state is better represented by the agent's (i) reasoning commitments, or reasoning standards, over a possibility space typically provided by the agent's language,¹⁰ (ii) total evidence, or the entire body of evidence, and (iii) degrees of belief. (One may also add background assumptions.) An agent's epistemic state is then rational just in case (i) the agent's reasoning commitments are rational, i.e., obey the probability calculus and possibly other conditions, and (ii) the agent's degree of belief in a hypothesis h is determined by the agent's evidence and their reasoning commitments (in light of the background assumptions). Taking the evidence as input, the agent's reasoning commitments give the agent's degrees of belief as output. An agent's reasoning commitments capture the agent's evidential standards related to (rational) reasoning. The commitments reflect how the agent would change their degrees of belief in response to potential further evidence.

3. The EEE-Slogan and non-epistemic values

In the following, I present two arguments in support of the main thesis:

Non-Epistemic Values in the EEE-Slogan: There are cases in which we cannot (adequately) apply the EEE-Slogan due to the differing non-epistemic values between us and our peers.

Philosophers of science, such as Rudner (1953), emphasised early the significance of non-epistemic values for the acceptance of or belief in hypotheses. Rational acceptance of or belief in (empirical) hypotheses involves a certain amount of epistemic risk (e.g., inductive risk). Available evidence supports a hypothesis only to a certain degree, but hardly with certainty. Accepting or believing such a hypothesis always involves a margin of error. The probability or degree of belief threshold at which it is rational to accept or believe a hypothesis depends on the ratio between the rates of false positives and false negatives one is willing to accept. In disciplines relevant to the well-being of humans, other animals, and the environment, the threshold at which it is rational to accept or believe a hypothesis arguably depends on how much worse, for the given purposes, it would be to accept or believe a false claim than to reject a true one.¹¹ It is

¹⁰See Brössel and Eder 2014, 2019, 2025, and Eder 2021, similarly, Schurz 2012 and Unterhuber and Schurz 2013. Reasoning commitments are understood similarly to Levi's (1974/2016, 1979, 1980, 2010) confirmational commitments but are also significantly different (see Eder 2021).

¹¹One might also value suspending judgment.

argued that non-epistemic values can determine the threshold that establishes how much epistemic risk one can rationally tolerate to accept or believe a hypothesis. Others, such as Longino (1994), discuss non-epistemic values as providing criteria for theory choice alongside epistemic criteria, such as those discussed by Kuhn (1977), which include “accuracy, consistency (internal and external), breadth of scope, simplicity, fruitfulness” (Longino 1994: 476). In this article, I am not concerned with such acceptance or belief that depends on non-epistemic values, even though it is obviously relevant when we learn from others by learning that they accept, believe, or even know a hypothesis. As emphasised previously, I focus on learning from others by receiving evidence that they have evidence for a hypothesis (i.e., learning from others’ evidence). In this context, the evidential support relation plays a significant role.

Concerning the evidential support relation, Longino (1979) and (1994) already emphasised that the evidential support relation depends on background assumptions, which in turn might depend on non-epistemic values. Thus, non-epistemic values (can) influence at least *indirectly*, via background assumptions, the evidential support relation. In this article, I specifically focus on the influence of non-epistemic values for the EEE-Slogan and argue for the main thesis by arguing that the evidential support relations can depend *more directly* on non-epistemic values when non-epistemic values influence (i) our reasoning commitments, or reasoning standards, or (ii) evidence (classification) (see Douglas 2000). Building and expanding on research in philosophy of science, I argue for Non-Epistemic Values in the EEE-Slogan. Evidence of evidence for a hypothesis is not always evidence for that hypothesis. While the involvement of non-epistemic values in the acceptance or belief in hypotheses is widely acknowledged, this is not the case for the adoption of reasoning commitments and is rarely addressed regarding evidence classification.

In the following, one argument in support of Non-Epistemic Values in the EEE-Slogan concerns (i) reasoning commitments, and (ii) another argument concerns evidence (classification). By presenting both, I clarify when to exercise caution in applying the EEE-Slogan, which in turn also affects whom we (rationally) choose to collaborate with.

3.1. Reasoning commitments and non-epistemic values

The first argument for Non-Epistemic Values in the EEE-Slogan is as follows:

1. In all cases where our peers’ reasoning commitments are not (rationally) acceptable to us, we cannot (adequately) apply the EEE-Slogan.¹² (Premise 1_{RS})
2. There are cases in which our peers’ reasoning commitments are not (rationally) acceptable to us due to the differing non-epistemic values between us and our peers. (Premise 2_{RS})

∴ There are cases in which we cannot (adequately) apply the EEE-Slogan due to the differing non-epistemic values between us and our peers. (From 1. & 2.)

The following considerations support Premise 1_{RS}. Imagine we are deciding with whom of our peers to divide cognitive labour to learn from their evidence. When we learn from our peers’ evidence, we gain insight into the evidence they have gathered that supports a specific hypothesis. Then, according to the EEE-Slogan, we also have evidence

¹²A more formally correct, yet also more cumbersome, premise would be: In all cases where our peers’ reasoning commitments are not (rationally) acceptable to us due to some factor F, we cannot (adequately) apply the EEE-Slogan due to F.

for that hypothesis. Because the evidential support relation, which determines whether peers have evidence for the hypothesis in question, relies on the reasoning commitments of the peers, it is rational for us to divide cognitive labour only with peers whose reasoning commitments we would accept. Why else would we increase our probability or degree of belief in the hypothesis in question just because we receive evidence that our peers have evidence for it if we do not accept the reasoning commitments of our peers that underlie the evidential support relationship? Thus, when we want to learn from our peers' evidence, it is required that the peers form their degrees of belief based on reasoning commitments we would accept. This leads to the following:

Premise 1_{RS}: In all cases where our peers' reasoning commitments are not (rationally) acceptable to us, we cannot (adequately) apply the EEE-Slogan.

Now, let us examine what speaks in favour of Premise 2_{RS}. Sometimes, different scientific teams arrive at varying assessments of scientific hypotheses, even though they have the same evidence (Silberzahn *et al.* 2018). This indicates that they utilise different reasoning commitments for forming their degrees of belief in hypotheses. One could be tempted to argue that it is only descriptively correct that different scientific teams have different reasoning commitments, but the different commitments cannot all be rational. It seems bold to claim that the reasoning commitments of scientific teams are not rational. I will demonstrate that it can be rational for peers to maintain differing reasoning commitments, as these differences can arise from their different non-epistemic values.¹³ To begin, consider the following quotation by Anderson:

"Quantitative studies typically contain numerous variables. Not every logically possible combination of and relationship among these variables is significant, either statistically, clinically, or normatively. Researchers must therefore choose which ones to analyze. With respect to any outcome variable, they also must decide whether to focus on *main effects* of independent variables on the outcome or to look for *interaction effects*. [...] The decision to focus on main effects, or to look for interaction effects, reflects background values. A main effects analysis accepts the average outcome as representative of the group, discounting individual variation. This makes sense if one believes that a single way of life is best for everyone. But for researchers who doubt this, attention to within-group heterogeneity is imperative (Longino 1994, 477)." (Anderson 2004: 16–17)

Often neglected in the epistemological literature is the fact that we, as cognitively, temporally, and economically limited human agents, cannot consider all aspects of data, all alternative hypotheses, and all kinds of interaction effects. So, one has to choose which aspects of the data are relevant for theory assessment and which alternative hypotheses, explanations, etc., need to be ruled out before accepting a hypothesis. These choices are relevant for adopting the possibility space over which the reasoning commitments are defined, and the choices and possibility space, respectively, can depend on non-epistemic values. As mentioned before, an agent's reasoning commitments capture the agent's evidential standards for (rational) reasoning. Taking the evidence as input, the agent's reasoning commitments give the agent's degrees of belief as output. The commitments reflect how the agent would change their

¹³Based on such differing reasoning commitments, one could present an argument against the well-known interpersonal uniqueness thesis. According to the thesis, "If an agent whose total evidence is E is fully rational in taking doxastic attitude D to P, then necessarily, any subject with total evidence E who takes a different attitude to P is less than fully rational" (see Kelly 2014: 299). However, thoroughly discussing such an argument would lead us too far afield. (A commentary by Sarah Wright made me aware that I should mention the connection to the uniqueness thesis).

probabilities, or degrees of belief, in response to potential further evidence. They reflect the relation between evidence and degrees of belief in a hypothesis. This relationship clearly varies depending on the aspects of data, alternative hypotheses, and types of interaction effects considered; these, in turn, may be influenced by the non-epistemic values taken into account. Put a bit differently, the relationship differs based on the possibility space provided by the respective language, which may also depend on the non-epistemic values considered. In the spirit of the above quotation, and adjusted to our fine-grained framework for representing epistemic states, one's evaluative position concerning heterogeneity within social groups can, for instance, influence the adoption of reasoning commitments in the relevant area of research. To illustrate how reasoning commitments may be distributed differently over possibility spaces, depending on non-epistemic values, let us consider the divorce study discussed by Anderson (2004: 16–17). I will refer to the respective example as the *Interaction-Effects in Divorce Study Example*.

Let's consider the study, the available evidence, and the hypothesis that the maturity of children's perspective-taking affects how well they psychologically adjust to their parents' divorce. At first sight, it seems reasonable to believe that the evidence supports the hypothesis. It seems reasonable that the more mature children's perspective-taking is, the better they psychologically adjust to the situation after their parents' divorce. However, Stewart *et al.* (1997) found no main effect of more mature perspective-taking on psychological adjustment (Anderson, 2004: 16). Without further consideration, the available evidence does not support the hypothesis that the maturity of children's perspective-taking affects how well they psychologically adjust to their parents' divorce. Reasoning commitments that do not consider the possibility of interaction effects between psychological adjustment and other factors do not provide evidential support for the hypothesis that the maturity of children's perspective-taking influences their psychological adjustment to their parents' divorce. However, Stewart *et al.* (1997) found that the more mature children's perspective-taking is, the better they adapt psychologically to the situation after their parents' divorce, provided they have witnessed many parental conflicts. The more mature children's perspective-taking is, the worse they adapt psychologically to the situation after their parents' divorce, provided they have witnessed a few parental conflicts (Anderson, 2004: 16). Thus, there is an interaction effect between witnessing parental conflicts, mature perspective-taking, and psychological adjustment. Our reasoning commitments may vary depending on whether we merely consider main effects or consider the *possibility of interaction effects*. (The reasoning commitments are then distributed differently over the different possibility spaces provided by the respective language.) Our reasoning commitments may vary depending on whether we expect them to be equally accurate for every type of family that might experience a divorce or merely accurate in expectation for a statistical reference family, such as in the median or benchmark household. The kind of accuracy we prefer depends on the non-epistemic values we adopt. From the perspective of Bayesian confirmation theory, the first stance requires our (probabilistic) reasoning commitments to keep posterior risk low in every conditional slice of the population, regardless of how we update on factors such as age, income, custody arrangements, and so on. The second stance is more lenient: it is satisfied when the reasoning commitments minimise the expected loss under the prior distribution of families, even if some subgroups end up with higher error rates. This mirrors the fairness debate concerning parity criteria, which must hold after conditioning on any information, and calibration-type criteria, which are required to hold only “on average” across the prior. Consequently, fairness considerations regarding the distribution of epistemic risk affect an agent's emphasis on main effects or interaction effects, as well as their selection of reasoning commitments. This leads to the following premise of our argument:

Premise 2_{RS}: There are cases in which our peers' reasoning commitments are not (rationally) acceptable to us due to the differing non-epistemic values between us and our peers.

Finally, from Premises 1_{RS} and 2_{RS}, we receive the conclusion of the first argument:

Non-Epistemic Values in the EEE-Slogan: There are cases in which we cannot (adequately) apply the EEE-Slogan due to the differing non-epistemic values between us and our peers.

Therefore, depending on what is considered by our reasoning commitments, there may or may not be evidential support. An agent *s* receives evidence of a peer's *s** evidence for *h*. But that the other agent *s** has evidence for *h* does not guarantee that *s* also has evidence for *h*, as they may adhere to different reasoning commitments due to considering different effects, which depend on non-epistemic values adopted. Thus, non-epistemic values can significantly impact whether evidence that there is evidence for some hypothesis is evidence for that hypothesis.

3.2. Evidence and non-epistemic values

The following presents the second argument for Non-Epistemic Values in the EEE-Slogan:

1. In all cases where our peers' evidence is not (rationally) acceptable to us, we cannot (adequately) apply the EEE-Slogan¹⁴. (Premise 1_E)
2. There are cases in which our peers' evidence is not (rationally) acceptable to us due to the differing non-epistemic values between us and our peers. (Premise 2_E)

∴ There are cases in which we cannot (adequately) apply the EEE-Slogan due to the differing non-epistemic values between us and our peers. (From 1. & 2.)

Similar to before, let us focus on Premise 1_E first. As mentioned earlier, when we divide cognitive labour to learn from our peers' evidence and receive evidence that they have supporting evidence for a hypothesis, according to the EEE-Slogan, we also have evidence for the hypothesis. This is because our peers have evidence to support it. An underlying assumption is that if a peer possesses evidence supporting the hypothesis, we would also (rationally) accept this evidence if we were to receive it and thereby acquire evidence for the hypothesis. However, if our peers' evidence were not acceptable to us, there would be no reason to assume that we would receive evidence supporting the hypothesis. Thus, it seems irrational to divide cognitive labour with peers whose evidence we would not accept. Therefore, it is reasonable to conclude that it is rational to divide cognitive labour only with peers whose evidence we would accept. This supports the following premise:

Premise 1_E: In all cases where our peers' evidence is not (rationally) acceptable to us, we cannot (adequately) apply the EEE-Slogan.

It is not always clear whether a piece of evidence accepted by an agent is acceptable for a peer. To demonstrate that it is not the case and that Premise 2_E holds, let us consider an

¹⁴Again, more formally correct would be the formulation: In all cases where our peers' evidence is not (rationally) acceptable to us due to some factor *F*, we cannot (adequately) apply the EEE-Slogan due to *F*.

example discussed by Douglas (2000) below.¹⁵ I will refer to it as the *Borderline Malignancy Example*.

Douglas focuses on a study involving rats that were exposed to dioxin. An aim of such studies is often to determine the level of carcinogenic dioxin exposure. Douglas mentions an example involving liver slides from rats previously exposed to dioxin, which pathologists had classified differently from each other over the years. Some pathologists classify more borderline cases as malignancies than other pathologists. Referring to this example and regulations of dioxin pollution, Douglas emphasises the role of non-epistemic values involved in the classification of evidence:

“Although choosing to judge borderline cases as malignancies will more amply protect public health, the approach does so at the economic costs of potentially unnecessary regulation. When pathologists view the slides, borderline cases will occur (as evidenced by the lack of agreement among pathologists). Some judgements must be made by the pathologists regarding how to classify the liver slides. Depending on how one values these consequences of false positives and false negatives, one would want to make questionable judgements in favor of one direction or another”. (Douglas 2000: 571).

This differing classification illustrates how non-epistemic values can influence the classification of evidence when faced with borderline cases. Contra this, one might be tempted to claim that the different pathologists in the example classify the liver slides differently because they have learned to classify the evidence more accurately. Even if the differing classifications in the example are due to the pathologists improving their classification skills, which is not Douglas’ interpretation of the case, the problem remains that when facing borderline cases, one must decide how to classify them, and the decision also depends on underlying non-epistemic values. Suspending judgement on borderline instances is also not a feasible option, as crucial information that could lead to stricter regulations to protect public health would be lost. One might, of course, consider marking evidence with a designation that reflects (a certain amount of) uncertainty, where borderline cases are considered to be very uncertain. However, this is not how evidence about others’ evidence is typically conveyed by our peers. The question remains of what to do when one does not receive this additional information about uncertainty and only has evidence of others’ evidence. In such cases, differing non-epistemic values still matter, and the following holds:

Premise 2_E: There are cases in which our peers’ evidence is not (rationally) acceptable to us due to the differing non-epistemic values between us and our peers.

From Premises 1_E and 2_E, we receive the conclusion of the second argument:

Non-Epistemic Values in the EEE-Slogan: There are cases in which we cannot (adequately) apply the EEE-Slogan due to the differing non-epistemic values between us and our peers.

Given that peers may classify evidence differently due to different non-epistemic values involved, it is unclear whether an agent who receives evidence of a peer’s evidence for *h* receives evidence for *h*. The agent might know in advance that the peer does not classify the evidence in the same way as they do. So, an agent might not be impressed by the fact

¹⁵Wilholt 2013 also mentions the study by referring to Douglas 2000.

that a peer possesses evidence for a hypothesis if they have reasons to believe that they might not have accepted the body of evidence in the light of the same experiences. As Douglas states, diverging sets of non-epistemic values may be one reason for different evidence classifications. Non-epistemic values can significantly impact whether evidence of our peers' evidence for a hypothesis is considered evidence for that hypothesis in our eyes, and thus, whether the *EEE-Slogan* can be adequately applied.

4. Discussion

4.1. Lessons

I focused on learning from our peers' evidence. I did so by focusing on the *EEE-Slogan* and its limitations:

EEE-Slogan: "Evidence of evidence is evidence. More carefully, evidence that there is evidence for h is evidence for h " (Feldman 2007: 208; notation adjusted).

I am interested in what considerations should be taken into account when we apply the slogan to cases where the evidence is unrevealed, that is, we do not know what body of evidence our peers accept. I demonstrated that there are cases in which our peers' reasoning commitments and evidence are not (rationally) acceptable to us due to differences in non-epistemic values.¹⁶ Building on this, I argued that in such cases, we cannot (adequately) apply the *EEE-Slogan*.

Non-epistemic values can influence evidential standards by influencing reasoning commitments or evidence classification. Since reasoning commitments and the classification of evidence are relevant for the evidential support relation, non-epistemic values can significantly influence whether evidence that there is evidence for h is evidence for h . Evidence of the other agent's evidence for a hypothesis does not suffice for having evidence for the hypothesis because what is supported by an agent's evidence does not need to be so for another agent with different non-epistemic values.

To be clear, I do not argue that we cannot learn from our peers' evidence whenever we suspect they hold different non-epistemic values. I argue that there are cases (in domains where the well-being of humans, non-human animals, and the environment is significant) where the non-epistemic values of our peers differ from ours in such a way that they lead to differences in reasoning commitments or evidence classification, to the extent that we cannot (adequately) apply the *EEE-Slogan*.

4.2. Criticism

According to the main line of criticism of my discussions of the limitations of the *EEE-Slogan*, there are objective standards for determining when something qualifies as evidence for a hypothesis, and the *EEE-Slogan* should be read as presupposing these standards. The criticism unfolds in two steps. According to the first, there is one (and only one) correct evidence-for, or evidential support, relation, regardless of one's non-epistemic values. Only if our peers' body of evidence supports the hypothesis in question in this objective sense can we apply the *EEE-Slogan*. For this, the reasoning commitments, which, among others, determine what the evidence supports, are understood in an objective sense. According to the second step, there are objective

¹⁶Note that it is not necessary to consider the complete reasoning commitments and evidence of our peers, only those relevant to the hypotheses in question.

standards for classifying evidence, regardless of one's non-epistemic values. Only if our peers' body of evidence meets these objective standards can we apply the *EEE-Slogan*. To apply the *EEE-Slogan*, we must determine whether, according to these objective standards, we possess evidence that our peers have evidence for a hypothesis.

The criticism is based on the assumption that adequate evidential standards are objective; consequently, adequate reasoning commitments and standards for classifying evidence are also objective. As we have seen in Section 3, based on philosophical interpretations of how scientists gather evidence and reason with it, not all adequate evidential standards must be objective. Even if there is an understanding of evidential standards that is objective and may be useful for certain purposes, the examples in Section 3 demonstrate that when it comes to human agents, who are limited, there is also a subjective understanding of evidential standards. Evidential support and reasoning commitments, respectively, can only be defined in relation to a possibility space provided by a language; the possibilities we allow to be expressed and taken seriously may still depend on non-epistemic values. As human agents, we cannot consider all possibilities and must make choices about which to consider. As argued previously, the adequacy of these choices sometimes depends on non-epistemic values. Similarly, as human agents, we occasionally face borderline cases, such as in the *Borderline Malignancy Example*, and must decide how to classify evidence, a decision that also relies on underlying non-epistemic values. There are two positions one can take to push back against subjective evidential standards concerning what to accept as evidence and how to reason with it. First, one might agree with me that non-epistemic values are relevant and yet, contrary to me, suggest that the adequate evidential standards are objective because non-epistemic values are objective. These, in turn, determine the objectively correct reasoning commitments and body of evidence that are (rationally) acceptable to us. I must admit that I tend to disagree that all non-epistemic values are objective. However, to argue for this point here would require straying too far afield into areas such as ethics and losing the epistemological focus. Furthermore, even if all non-epistemic values were objective, I would still be correct in stating that non-epistemic values must be considered if we wish to learn from others' evidence and that the non-epistemic values actually adopted, even by scientists, can be subjectively coloured and that we have not been able to intersubjectively operationalise the recognition of these objective non-epistemic values.

According to the second position of pushing back against subjective evidential standards, one might argue that there are objective evidential standards regarding what the evidence supports and when to include something in our body of evidence, and that these standards are independent of non-epistemic values. However, there is no denying that in some domains, agents can disagree deeply on what those standards are and that this disagreement is often correlated with their disagreements concerning non-epistemic values. Therefore, in such domains, either there are no objective evidential standards, or we have been unable to intersubjectively operationalise the recognition of these objective evidential standards.

Moreover, when applying the *EEE-Slogan*, we cannot be sure whether our peers' evidence supports a given hypothesis. We cannot do this because our peers' evidence is not revealed. Thus, even if we apply objectively correct evidential standards when relying on others by applying the *EEE-Slogan*, we must presuppose that our peers also adhere to these standards. To apply the *EEE-Slogan*, without knowing our peers' evidence, we must judge from our perspective whether what our peers consider evidence for a hypothesis would also be evidence for us. For this purpose, it is essential to establish that one's peers share one's evidential standards. Differences in non-epistemic values can suggest that one does

not share evidential standards, regardless of whether there are objectively correct evidential standards (or even objectively correct non-epistemic values).

4.3. Outlook

In the following, I discuss directions for future research on how we can learn from others' evidence.

First, we can learn about the others' non-epistemic values (e.g., some people reveal or indicate their accepted non-epistemic values in public) or negotiate and agree on the same non-epistemic values. For instance, in research teams with some division of labour, members might often agree on non-epistemic values and the same reasoning commitments and classification of the evidence. An interesting question is: How can we negotiate and agree on non-epistemic values to facilitate a division of labour with our peers? Another question is: Should one reveal one's non-epistemic values when reporting that one has evidence for a hypothesis to clarify the context and facilitate a division of labour with peers?¹⁷

Second, I have focused on peers, but what if the other agent with evidence supporting a hypothesis h is an expert and epistemically superior? Typically, the epistemic capacities of experts differ from those of laypersons. Their reasoning, commitments, and abilities to classify evidence are superior to those of laypersons despite being influenced by their non-epistemic values. The expert's non-epistemic values may differ from those of a layperson who obtains evidence of expert evidence for h . I am unaware of any specification of the EEE-Slogan for these cases. In many cases, evidence of an expert's evidence for h is evidence for h .¹⁸ The expert's expertise (expert knowledge, track record, etc.) is why one should defer in these cases. In some cases, however, it may even be rational to disregard an expert's evidence in favour of a hypothesis. If the expert's non-epistemic values diverge significantly from those of the layperson and are likely to influence the expert's evidential standards for this particular hypothesis, one might even disregard the expert's evidence. Thus, here is another interesting question: When is evidence of an expert's evidence for a hypothesis evidence for that hypothesis for us, as laypeople, even when the expert and we hold different non-epistemic values?

Third, some literature also suggests that a group of agents can obtain more robust results when the agents use different methods or standards (see, e.g., Heesen *et al.* 2019; Dellsén and Linnebo *forthcoming*; Trpin 2023). Similar findings might emerge for the debate on the EEE-Slogan here. Thus, an additional intriguing question is this: under what circumstances does the evidence of many other agents' evidence for a hypothesis count as evidence for that hypothesis (for us), particularly when those agents possess non-epistemic values that differ from each other and our own?

Acknowledgements. I would like to express my gratitude to Peter Brössel, Thomas Grundmann, Andy Müller, Jakob Ohlhorst, and Sarah Wright for their invaluable insights during discussions on earlier drafts of this article, which significantly improved its quality. I also want to thank the audience members who attended my presentations on this article at the following events for their thoughtful feedback: the *Epistemology Conference* in Bled (Slovenia) in 2023, the *Cologne Holiday Workshop* at the University of Cologne (Germany) in 2023, the *Colloquium in Logic and Epistemology* at Ruhr-University Bochum (Germany) in 2023, the *Modern Transcendental Philosophy Workshop* in Dubrovnik (Croatia) in 2023, the *Bounded Rationality, Imperfect Data, and Trust: Perspectives from Social and Formal Epistemology Workshop* at the University of Pavia (Italy) in 2023, the *Closing Conference of the Euregio-Science-Fund-Projekt "Resilient Beliefs"* in Trento (Italy) in 2024, and the *Episteme Conference* in Lindos (Greece) in 2024.

¹⁷I added this question thanks to a comment by Sarah Wright.

¹⁸See Moretti 2015 in this regard. However, Moretti disregards non-epistemic values.

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