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RESEARCH ARTICLES

GROUP BELIEF: SUMMATIVISM IN NON-SUMMATIVIST CASES

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ABSTRACT: The *summativists* generally analyze group belief in terms of belief of the majority. The *non-summativists* counterargue that it is possible for a group to believe that *p* even if "none" of its members believes that *p*. In doing so, they usually appeal to hypothetical cases in which groups are "structured" groups like committees, research groups, governments, as opposed to "collective" groups like Finns, America, Catholic Church. In this paper, I raise the objection that non-summativist cases involve summativism. While most contemporary objections to non-summativism tend to be *rejectionists*, i.e., showing that non-summativist cases involve group acceptance rather than group belief, my objection is newfangled in that it grants non-summativist cases group belief but shows that group belief in such cases is majority belief.

KEYWORDS: groups, group belief, summativism, non-summativism

1. Introduction

It is said that there are at least two senses of group: the "collective" group and the "structural" group.[1] It is said that the collective groups are groups such as Finland or the Africans; thus it is assumed that these groups are "unstructured" as opposed to structural groups such as the government of Finland.

But this talk of "structure" and "non-structure" is obviously meant to be respectively talk of "exactness" and "vagueness" with respect to the number of members. It is quite exact or clear to any Finnish who is aware about Finnish politics that the government of Finland consists of a limited number of members. The limitation of group members therefore gives us exactness, and this exactness in turn allows us to count this group as "structured" and not as "collective." Ceteris paribus, it is assumed that collective or unstructured groups consist of indefinite group members given that it is quite vague and unclear to anyone just exactly how many members these collectives enjoy. These assumptions, I believe, are dubious for two reasons:

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[1] I borrow these terms from Tuomela (1992). For more discussion about the kinds of groups, see Gilbert (1987) and Bird (2010). For a sophisticated article on the nature of groups see Ritchie (2013).

(Ψ) The collective group can also be definite and exact, thus structured.

(Ψ∗) The structured group is sometimes indefinite and vague, thus collective.

(Ψ). Truly, Finland, or the people of Finland, are limited in the same way the members of the Finnish government are limited. To state otherwise is to state that the Finns are never limited, that they are not amenable to count. But this is absurd. If we count the Finns, we will reach a definite number and hence exactness and hence structure.

Perhaps one now is tempted to say: no we cannot. Perhaps this temptation is motivated by the fact that the number of the Finns is continuously increasing by Finnish childbirths, and that therefore the count of the Finns is never limited to a definite number. But this I doubt.

Not only it is possible that there be, for various reasons I shall not state at the present, a moment in which there be a cease of Finnish childbirths, but it is possible to have every Finnish Birth Center counts Finnish childbirths, and have thereby definite numbers, which are, of course, continuously changing.

This may be an insufficient answer to our objector. He may in fact proceed to remark: what of Finnish pregnancies in the rural sides of Finland? I shall not reply in-depth. But all I claim is the perfect possibility to be, whether by sophisticated technology or else, updated, at a time, with the limited number of the Finns.

But our enemy might say: just like Finnish childbirths cause perils to the claim (Ψ), Finnish fatalities cause the same perils. How do you account for this?

Again I say that it is perfectly possible to meticulously cover childbirths and fatalities with our sophisticated means of the present day.

But now if the Finns are quantitatively limited, then we have an exact knowledge about their number.

It may be said that, using Russellian terms, we have an exact knowledge of their number only via description or theory, but via knowledge by acquaintance or practice, we have no such knowledge.

While it is true that we may have an exact knowledge of the number of the Finns by description, I doubt that we cannot have such knowledge by acquaintance. Some of us do. Sociologists about population growth and decline, are indeed acquainted with such knowledge.

Therefore, if the Finns are limited in number and if this number may be rendered exact to some by description and to others by acquaintance, then the Finns are "structured," hence (Ψ).

(Ψ∗). Structured groups like the government of Finland are not, as it is assumed, limited in number. Like the collective group the Finns, the number of the operative members of the Finnish government change continuously. The only

difference between structured groups and collective groups in this respect rests on "time." Whereas the limited number of the Finnish government may change, perhaps centennially, i.e., with the slow change of the Finnish constitution, the limited number of the Finns changes hourly if not secondly.

Furthermore, the Finns who are knowledgeable about politics are acquainted with, and hence have an exact idea about, the number of the members of the Finnish government, in which case renders the Finnish government structured. But this is not always the case. Some of us may have a vague idea about the members of the Finnish government, which renders the latter collective rather than structured. Thus suppose I ask so-and-so who never heard about Finland itself "what is the number of the members of the Finnish Government?" I suppose that even though he would not know the number by acquaintance, that is, in any exact fashion, he would nevertheless reckon by description, supposing he has a basic idea of a government, that there ought to be a definite number of members of the Finnish government just like he would reckon by description that there ought to be a definite number of the Finns.

In conclusion, if these groups, "structured" and "collective," share in common the fact that they have limited numbers, though changing in different intervals, and if these groups also share in common the fact that they may be clear to some but not to others, then there is *no* genuine difference between the structured and the collective. These are one and the same. Theoretically, or by description, which is our concern as philosophers, it is clear that the Finns are limited in number as much as it is clear that the Finnish government is limited in number.

Group epistemologists, on the other hand, usually analyze group belief, justification and knowledge, by resorting to groups as structured; as if structured groups are different from the collectives; as if the collectives are not appropriate as groups for group epistemology. This is wrong a view, and it shows bias. Correctly, as we saw, the difference between the kinds of groups at issue is minor rather than crucial. I move now to the subject of this paper, group belief.

Group belief is neither group knowledge nor group justification.[2] If a group believes that the earth is flat, their members may or may not have justification for that belief. They may for example have come to the belief on the grounds that they have visually perceived that the earth is stretchably flat, in which case they have a genuine epistemic justification. Conversely, they may have, supposedly, never seen the stretchability of the earth, in that, say, all of them being born stuck in a cave, and may have merely been receiving reports about the flatness of earth from a

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[2] See Schmidt (1994) if you are interested in group justification. See Faria (2022) if you are interested in group knowledge.

stranger who peaks once and in a while and who is not a member of their group, in which case they do not have a genuine epistemic justification, genuine as that which involves their own perception. Further, if knowledge of so-and-so is, as the tradition has it, a belief that is true plus a genuine justification, then our group knows that the earth is flat if the earth is indeed flat and not round, and believe that it is flat along a genuine justification. But group belief is merely a group belief, i.e., it is stripped from group justification and group knowledge.

Furthermore, group belief is much more problematic than *subjective* belief. "I believe that Estonians are friendly" is a proposition that contains myself believing a belief that is my own. But the proposition "Finland believes that Estonians are friendly" is one that contains a group believing a belief that is their own. But what do we mean by "their"? All Finns? Some Finns? One Finn? Finland the nation as such? To the question "who is believing in the first proposition?" the answer is evidently "I." To the question "who is believing in the second proposition?" the answer is not as evident. Sure, it is Finland. But how come that things such as Finland have mental attitudes? Obviously, Finland the nation does not have consciousness; Finland as such does not desire or imagine or believe or whatnot. Still, we predicate beliefs to subjects like Finland all the time: Iran believes that America is the source of political trouble; this research group concludes that metaethics is essential than normative ethics. But what is for a group to believe so-and-so?

2. Summativism and Non-Summativism

Two foremost theories attempt to explain group belief: summativism and non-summativism. Summativism holds that $group_1$ believes that p is explained by its members believing that p. Non-summativism holds that it is possible that $group_1$ believes that p even if none of its members believes that p. While summativism "converges" the belief of the group with the beliefs of its members, non-summativism "diverges" them.

What is striking is that non-summativists usually, if not always, work with the notion of group in terms of "structured" groups. Thus they appeal to cases of research groups, committees, governments, and the like. We find Gilbert for example stating:

> There is a kind of case which shows rather neatly that neither of the summative accounts considered so far can be correct. This depends upon the evident possibility that there can be coextensive groups, that is, groups with the same members (Gilbert 1987, 189).

The summativists on other hand are quite liberal about this issue. Be it a government or a people, if a group, in general, believes, then its belief is merely

reducible to the sum of its members' beliefs. But since I have argued above that there is no genuine distinction between the collective and the structured, any example I provide of a group, be it collective or structured, should not bother us as we proceed in this paper.

Now all summativists agree that group belief is reducible to its members' beliefs.[3] But some disagree apropos "the amount" of members' beliefs that would be necessary and sufficient to count group$_1$ as believing that p. Thus we find the Conservative summativists stating that

> (CS) it is necessary that "most or all" members of group$_1$ believe that p so that group$_1$ believes that p.[4]

(CS) however is thickened by two claims; for "most" is not "all." That I ate most apples does not mean that I ate all of them apples; thus we may say that there is a Weak and a Strong version of (CS):

> (Weak-CS) it is necessary that "most" members of group$_1$ believe that p so that group$_1$ believes that p.

> (Strong-CS) it is necessary that "all" members of group$_1$ believe that p so that group$_1$ believes that p.[5]

In addition to (CS) there are the Liberal Summativists who hold that

> (LS) it is sufficient that at least one member believes that p so that group$_1$ believes that p.[6]

I believe that (Strong-CS) and (LS) are false accounts.

(Ψ-1) The strong conservative view of summativism would be true if it is possible that group$_1$ believes that p and yet it is not the case that all of its members believe that p. Consider a newspaper report that states (N) Iran believes that America is the source of political trouble. "Iran" is ambiguous between two readings: Iran the collective and Iran the government. The members of Iran the collective would be Iranians; the members of Iran the government would be Iranian operative members. Now both readings imply that it is possible that Iran believes that (N) and yet not every member of Iran believes that (N). Thus there may be one Iranian citizen who

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[3] For an original defense of summativism see Quinton (1976).

[4] I borrow (CS) from Faria (2021, 84) and Lackey (2020, 187).

[5] *Ibid*. Note that Faria, Lackey, Tuomela, and many others, always present the paradigm account of summativism (CS) as group G believes that P if "most or all" members of G believe that P. But I believe that we should render the disjunction explicit by distinguishing (Strong-CS) from (Weak-CS).

[6] I also borrow (LS) from Faria and Lackey.

is a dissident of his country and who believes the opposite of (N); and there may be one Iranian operative member who is equally a dissident. Thus (Strong-CS) is false.

(Ψ-2) The liberal summativist view would be true if the belief of at least one member of group₁ is not sufficient for group₁ to believe that p. (LS) proponents usually resort to cases of authorial operative members.[7] Thus consider the current American president Joe Biden. (LS) proponents would say that the belief of Biden alone is sufficient for America to believe that (M) Iran is the source of political trouble. But this is wrong-headed. Biden is a "representative" of the majority of Americans. And if to represent is to present what was already presented, then in this case when most Americans present a belief at t_1 such as (M), Biden would present (M) again at t_2. Thus it is not Biden's belief alone in virtue of which we say group America believes, but it is the beliefs of the majority of Americans in virtue of which we say group America believes. It seems to me that (LS) proponents confuse Biden's belief "as individual" with Biden's belief "as representative." The individual Biden is not the President Biden. The individual Biden might in fact believe the contrary of (M), and the president Biden is forced to "reiterate" what "most" Americans believe so that the collective America believes. The belief of the president Biden is therefore "irrelevant" to group belief, he may or may not as an individual believe (M), but as a president he is forced to reiterate whatever the majority of Americans believe. His individual belief may go along with the belief of the majority or may go along with the belief of the minority. Therefore the (LS) claim that the belief of Biden alone is sufficient for America to believe (M) is not true. These outcomes allows us to conclude that (Weak-CS) is true, group belief is merely majority belief: if the majority of group₁ believes that p, then group₁ believes that p, and, equally, if group₁ believes that p, then the majority of group₁ believes that p. So (Weak-CS) is both sufficient and necessary for group belief.[8]

Two objections are raised against (Weak-CS) to which I reply.

(I*) It is objected that (Weak-CS) is not sufficient, that something else is needed. Thus suppose group₁ believes that the earth is round, and suppose that most members of group₁ believe that the earth is round. But suppose further that these members were not "explicit" about their belief, i.e., did not voice or proclaim their belief. Do we still say that group₁ believes?

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[7] See Lackey (2020, 187).

[8] (Weak-CS) has been traditionally endorsed. Cardinal thinkers like Hobbes, Rousseau and Locke—(respectively in *Leviathan* ((1651)1994, Ch. 16); *The Social Contract* ((1762)1997, Ch 2); *Two Treatises of Government* ((1689)1960, Ch 8.96)—affirm that such is the case about assemblies, groups, and collective entities; that these simply reflect the voices and votes of the majority.

I agree. We need more qualification. The latter objection reminds us of "dispositional beliefs" and "occurrent beliefs." While dispositional beliefs are beliefs stored in the mind or beliefs that do not presently occur to the mind, occurrent beliefs are beliefs currently taken into consideration by the mind. Thus when I debate with others whether the earth is round, my belief that the earth is round is occurrent, for after all I am defending it. But while defending the latter occurrent belief, I have other beliefs non-occurrent such as my belief that God exists which is in this case not occurrent but dispositional. Back to group belief. Should we say that the belief of group1 is reduced to the dispositional belief of most members of group1 or reduced to the occurrent belief of most members of group1? For my part, I think both; whether this or that, group1 believes that p. Think for example of religious groups. Muslims around the world gather at their mosques each Friday; in that context, most have the occurrent belief that God exists which would amount to group Muslims believes that God exists. But also when dispersed, most Muslims dispositionally believe that God exists which would amount to group Muslims believes that God exists.

(II*) It is objected that (Weak-CS) is not necessary, that it is possible for group1 to believe that p yet none of its members believe that p. Thus each member of a church committee may believe that gay marriage is permitted and yet the committee as one body decides to believe that gay marriage is not permitted. Therefore, members' beliefs can diverge from group belief. This is by the way the non-summativist objection.

I have two replies.

First, the non-summativist implies that there is something that is a group, i.e., an ontological entity as such. Pettit (2003) for example argues that a group can have a mind of its own. But a group is a not an object of acquaintance, such as members of a group or colors of this flower. The non-summativists violate the Principle of Acquaintance (PA), which states that any ontological analysis, in this case, social ontology, that endorses objects of no acquaintance is preposterous.[9] Worse, to say that there is a social ontological entity such as a group which has mind or consciousness of its own is twice preposterous. For one, the non-summativist posits a mysterious entity, and for two, he ascribes to it an actual belief. So the non-summativist should explain how can he sidestep these violations.

Second, and more related to the objective of this paper, I believe that there is no divergence in non-summativist cases; I am inclined to think that any non-summativist case, which entails the structure of the famous church committee case, the case with which we will be concerned in the following section, involves

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[9] For literature on (PA) see Russell (1910) and Hull (2019).

convergence or summativism rather than divergence or non-summativism. I demonstrate this next.

3. The Non-Summativist Case

Consider the church committee case:

> Suppose the Catholic Church forms a committee to deliberate on gay marriage. After hours of discussion, all of the members jointly agree that gay marriage should not be permitted. So the committee, as a group in a very conservative church, has this belief. However, it turns out that not a single member of the church committee actually believes this; instead, each one privately has a liberal perspective and supports gay marriage. But this is not the belief of the church committee, since its members felt that their decision should represent the Catholic Church and its traditional perspective (Faria 2021, 86).

The case (henceforth, the marriage case) does not specify the number of the committee members, and we should not obviously think that the committee consists of *every* catholic member. Suppose then that it consists specifically of "five" members.

Now is really there a divergence in the case above? The non-summativist says yes. Each member, he says, privately believes that (PRM) 'gay marriage is permitted,' and yet in discussing and deliberating the matter, they, using Gilbert's notion,[10] *jointly commit as one body* to accept or believe that (Not-PRM) 'gay marriage should not be permitted;' and if so, he continues, we have a case that shows divergence; thus, (Weak-CS) is false; we have a case where group$_1$ believes that p even if none of its members believes that p.[11]

This is dubious. I believe that the case involves convergence not divergence. But first I present an objection to the case by Faria; then I present mine. Faria's objection, unlike mine, is rejectionist, which is the trend nowadays. He (2021) observes no divergence of group belief from members belief by distinguishing between 'group belief' and 'group acceptance' and remarking that the marriage case involves the latter rather than the former.[12]

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[10] Gilbert (1987, 194). Joint commitment is a notion that serves to explain non-summativism; members of a committee commit together to discuss an issue with the purpose to find a joint decision as to whether P, a one body decision, a joint decision, regardless of what each member 'privately' believes. Others also hold the joint acceptance account. See Tuomela (1992) and Schmidt (1994).

[11] If non-summativism is true, then of course any other version of summativism is false, and not only (Weak-CS).

[12] These debates on whether Gilbert's account involves group acceptance or group belief are often depicted as debates between the rejectionists (those who believe that it involves group acceptance)

If his objection is correct, then the non-summativist, appealing to cases like the marriage case, does not genuinely reply to the summativist, since whereas the non-summativist talks in terms of group acceptance the summativist talks in terms of group belief. Their disagreement therefore would be verbal and ingenuine which renders both parties merely talk past one another. Worse, if Faria's objection is plausible, it would also obstacle my attempt to genuinely reply to the non-summativist. But is Faria's objection plausible?

Faria offers two objections: one from Doxastic Involuntarism and another from Truth Connection. I only present the former.[13] He contends that while we "voluntarily," or with control, choose to accept that *p*, we "involuntarily," or sans control, believe that *p*. Thus if it rains now before me, I would believe it *simpliciter*, involuntarily, instantly sans deliberation; conversely, I can accept say to teach Nietzsche's philosophy even if I believe simpliciter that it shouldn't be taught, and I do so likely to earn a living. Therefore, unlike believing that *p*, accepting that *p* is a voluntary, pragmatic, decision toward some subjective end.

Incorporating Faria's argument in the case in question, we learn that each of our five members believes that (PRM) involuntarily or instantly, whereas, toward a subjective end, they as one body voluntarily, pragmatically or deliberately, accept that (Not-PRM). We know that their subjective end, as the case reports, is that they have "felt that their decision should represent the Catholic Church and its traditional perspective." So there is group acceptance rather than group belief.

Again, if Faria is right, then all debates between the summativist and the non-summativist vis-à-vis this case, or any case in like structure, are incommensurable;[14] I however intend to counterargue the non-summativist cases, and in order to escape Faria's implicit incommensurability, I find it necessary to assess whether group belief and group acceptance are *indeed* distinct, and I should hope that they are not.

Hakli (2006) and Tuomela (2000) observe some interrelation between acceptance and belief.[15] Hakli for example would only partially agree with Faria. He concedes that whereas beliefs depend on evidence, acceptances depend on subjective ends, but he remarks further that beliefs might as well depend on subjective ends,

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and the non-rejectionists. For this see for example Gilbert (2002). If interested in arguments from rejectionists, see also Wray (2001).

[13] Faria (2021, 87–91). His two arguments are interconnected: Belief being 'involuntary' and based on evidence, the 'connection' it has with the world is *descriptive*. Acceptance being 'voluntary' and based on pragmatic reasoning, the 'connection' it has with the world is *prescriptive*.

[14] In this sense, the debates between rejectionists (e.g., Faria) and non-rejectionists (e.g., myself) are not incommensurable, since the point of these debates is to find whether the debates between summativism and non-summativism are commensurable or incommensurable.

[15] See Hakli (2006); see Tuomela (2000).

and acceptances on evidence.[16] Thus I can voluntarily believe that God exists on the "pragmatic" grounds that I desire to reside in Heaven; and I can involuntarily accept God's existence if say I experience a miracle depicted as reasonable "evidence" for God's existence.[17] Hakli coins such acceptances *acceptances as true,* and accordingly some beliefs are *beliefs as accepted*. Thus, like beliefs, acceptances involve evidence, and like acceptances, beliefs involve subjective ends.

Back to the case, if Hakli is right, then against Faria just because our five members are as one body motivated by subjective ends regarding whether (PRM), this by no means entail that group belief is not involved, for group belief and group acceptance in Hakli's view are too interrelated to be unrelated. I assume therefore Hakli's quasi-synonymous approach so that I may counterargue the case without being accused of incommensurability or verbal dispute.

Note that my objection to the case, furthermore, is different from Faria's. Whereas his is "external" or rejectionist in that the marriage case involves another phenomenon, i.e., group acceptance, mine is "internal" since it grants the case to involve group belief. Contra the non-summativist, and implicitly contra rejectionists, I object that the case involves convergence, particularly in terms of (Weak-CS).

First, we notice a "discontinuance" of belief in the marriage case. Our five members "begin" by disjointly believing that (PRM), i.e., each member believing that (PRM), and finish by "discontinuing" doing so by jointly accepting as true that (Not-PRM), i.e., all of them believing that (PRM). And if something discontinues to be the case, then the cause of its discontinuance must be the object that interferes with the process of continuance. Thus if I discontinue to dislike Katie, it is due perhaps to what we might call "interfering reasons" such as 'Katie has been kind to me." Analogously, there must be some interfering reason for the discontinuance in the marriage case, and fortunately we know what it is: they have felt that their decision should represent the Catholic Church and its traditional perspective.

Now to clearly state my objection it would be convenient first to modify the latter interfering reason. Substitute then "their decision" for "their belief as a group" and 'its traditional perspective' for "its traditional belief."[18] We acquire this interfering reason:

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[16] Hakli (2006, 289).

[17] Think of Moses' experience of splitting of the Red Sea.

[18] There should be no problem in making this substitution: regarding 'their decision' it is clear; regarding 'perspective,' if our members felt that they should represent the Church's perspective on gay marriage, then this means that they wish to change their previous belief that (PRM) to the Church's belief that (Not-PRM); thus perspective in this context just means belief.

(IR) our five members have felt that their belief as a group should "represent" the Catholic Church and its traditional belief.

(IR) is indispensable since—having therein clear-cut[19] epistemic terms together with "represent"—it demystifies the convergence in the case. We have a representative group and we have a traditional belief, meaning, the majority belief. This reminds us of (LS), that it is sufficient for one operative member of group$_1$ to believe that p so that group$_1$ believes that p. But we concluded that (LS) is false. Remember that we said a group representative, like Biden, is merely a reiterator of whatever most members of that group believe or desire or whatever mental attitude that group has. Biden's belief is irrelevant. What is relevant is the belief of the majority.

Now since our five members of the church committee "represent" the Catholic Church, they must be operative members or representatives of most members of the Catholic Church; that is, whatever mental attitude the majority of the Church members expresses, our five members, being representatives and hence reiterators, are forced to reiterate it regardless of what they believe as individuals. Therefore, what explains our five members individually believing that (PRM) and yet collectively believing that (Not-PRM) is the fact that our five members *as individuals* believe that (PRM), but *as operative members* believe that (Not-PRM). Their beliefs as individuals are irrelevant; their individual beliefs may either fall within the majority or the minority, and in this case their belief that (PRM) falls within the minority.

But all this account so far corresponds to (Weak-CS); group$_1$ believes that p means that most members of group$_1$ believe that p; so group Catholic Church believes that (Not-PRM) means that most members of the group believe that (Not-PRM).

But note that so far I have been arguing for a group belief where the group in question is the Catholic church and not our Committee of five members. So it will be said that the marriage case has it that our five members are grouped as a committee, and we are concerned about the belief of this group committee together with the beliefs of the members of this group committee, namely the individual beliefs of our five members. It will be said that we are not concerned about the belief of the group Catholic church and their members. It will be said that your objection works indeed but only if the group in question is Catholic Church and not if the

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[19] See Le Morvan (2017, 1221). He clarifies the distinction of 'clear-cut' epistemic terms—e.g., 'knowledge,' 'justification' and 'belief'—from what he calls 'in the ballpark' epistemic terms—e.g., to be sure, evidence, certainty, perspective. The *analysans* of clear-cut epistemic terms are often epistemic terms 'in the ballpark.'

group is the Committee of five members. Again, the committee believes that (Not-PRM) even if each of its members believes that (PRM). There is no convergence here.

I believe that there is. The objector fails to see that the committee here does not consist simply of five members. After all, their final decision has been influenced! But influenced by whom? It is influenced by certain members call them the "invisible" members of the Catholic Church, who were somehow, transcendentally, part of that committee. For while deliberating about whether to permit gay marriage or not, our five members have certainly conjured the presence of these invisible members, have invoked their beliefs, *as if* our visible five members were in discussion with their fellow invisible members. And if this is the case, then the committee is not really a committee of five members, but the committee is itself the group Catholic Church; the former "structured" group is only superficially structured; it is in fact a collective. Therefore, the committee *or* the Catholic church believes that (Not-PRM) because most of its members believe that (Not-PRM), and our five members being merely representatives only reiterate the voice of the majority, regardless of what they believe as individuals, and it merely happens to be the case that the beliefs of our five members, i.e., that (PRM), falls in the minority. Hence convergence!

4. Conclusion

The collective groups are not really different from the structured groups. A structured group involves a collective, and a collective involves a structured group. Thus the church committee involves invisible members together with our five members which renders this committee a collective, and the collective Catholic Church involves a structured group such as the church committee of our five members. Also, as we have seen in section 1, there is a genuine sense in which both Catholic Church and church committees may be collective groups and be structured groups. Both are collectives in that to some people the exact number of their members is unclear, i.e., to some people the image of both groups is vague. And both are structured in that theoretically these groups enjoy a determinate number of members. Therefore, the non-summativist strategy to show the possibility of divergence between group belief and members belief by appealing to cases involving structured groups will not do. We saw that the church committee is merely a superficially structured group, that that committee is in fact the collective Catholic Church.

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EDUCATION AND KNOWLEDGE

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ABSTRACT: In this paper, I challenge a traditional assumption concerning the nature and aims of education. According to epistemic infallibilism, propositional knowledge requires epistemic certainty. Though some philosophers accept infallibilism, others consider it implausible because it does not recognize ordinary cases of supposed knowledge. On this objection, we possess many items of propositional knowledge, notwithstanding the fallibleness of these items. Infallibilism is inconsistent with such items and thus considered unwarranted. I articulate this kind of objection to infallibilism as it concerns education. I then offer a cumulative case defense of infallibilism and evaluate that defense. This examination suggests that much of what we commonly consider as education does not provide knowledge, and therefore that the traditional assumption is incorrect. My paper has interdisciplinary interests with respect to epistemology, philosophy of education, philosophy of science, and pedagogical practice.

KEYWORDS: aporetics, infallibilism, education, knowledge, justification, certainty

1. Introduction, Assumptions, and Key Terms

According to Harvey Siegel (2009, 3), philosophy of education is the branch of philosophy that addresses questions concerning the nature, aims, and problems of education. Regarding the nature of education, some hold that education is essentially a matter of acquiring propositional knowledge. As P. H. Hirst and R. S. Peters (2012, 13) note, to educate someone is to develop in that person states of mind which involve knowledge. On this view, the very concept of 'education' indicates the acquisition of knowledge (2012, 19).

Concerning the aims of education, as Emily Robertson (2009, 12) writes, "it seems reasonable to assume that acquiring propositional knowledge is a major aim of education." Siegel (2018) states that the majority of historically significant philosophers of education have held that such knowledge is a basic epistemic aim of education. According to Alessia Marabini and Luca Moretti (2020, 492), philosophers have recently asserted that the aims of education include the attainment of knowledge and similar epistemic goods such as true belief and justified belief. Jonathan Adler (2003, 285) agrees, citing Alvin Goldman: "Education, especially liberal education, aims at transmitting knowledge." Adler calls this "the traditional view." I will adopt this title to refer to the claim that the acquisition of

propositional knowledge is part of the nature and epistemic aims of education. I will assume *arguendo* that this is a traditional assumption in the philosophy of education.

We speak of being educated concerning propositional knowledge and know-how. Academic education is an example of the former; vocational education of the latter.[1] In this paper, I emphasize academic education in an effort to scrutinize epistemic infallibilism (EI). This scrutiny raises an *aporia* which, according to Nicholas Rescher (2009, 106), is where philosophical deliberation starts. I then defend EI and show that this defense challenges the traditional assumption about education, suggesting either that is false or that if true, we cannot be educated in many important subjects.

I assume the following working definition of *academic education*: the result of a process of systematic instruction by which one obtains propositional knowledge. This process occurs at the primary, secondary, and university levels. The definition is consistent with the traditional view. I therefore construe the traditional view as holding that the nature and aims of *academic education* (as opposed to vocational education) involve the attainment of propositional knowledge. On this definition, the verb 'educate' is factive and thus 'academic education' is a term of success; i.e., for one to be educated in some academic discipline, one must acquire propositional knowledge about that discipline. For instance, suppose a student completes an academic course with a passing grade yet fails to obtain propositional knowledge about the subject of the course. In this case, the student is not academically educated in that subject, despite credit received in the course. And if a student obtains propositional knowledge about the subject, yet does not complete a formal academic course in that subject, then the student is academically educated in that subject. Being academically educated in subject S entails having propositional knowledge about S.

By "propositional knowledge" I mean *knowledge that*, or knowledge of the informational content of a declarative sentence. Roughly, propositional knowledge is at least a matter of justified, true belief (JTB). I will elaborate on JTB below. By "know-how" I mean the cognitive and perhaps corresponding physical ability to perform some action. By "self-knowledge" I mean immediate awareness of one's own mental states such as thought, belief, desire, or sensation.

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[1] It should be noted that know-how is obtained in academic education and propositional knowledge is acquired in vocational education. For instance, a university student in a history class might learn how to do historiography; a college student of logic might learn how to construct a deductive syllogism; a student in a vocational course for electricians might obtain propositional knowledge about physics.

In epistemology, Gettier problems indicate that propositional knowledge is more than JTB. It appears that some additional property which makes a belief immune to Gettier challenges is needed. The general structure of such problems suggests that Gettier-style cases contain unacceptably fallible justification and/or epistemic luck. With respect to an item of JTB, the presence of either factor prevents that item from counting as propositional knowledge.

One proposal for handling Gettier problems is to adopt epistemic certainty as a necessary condition for knowledge.[2] Let us call this "Infallibilism Thesis$_1$" (IT$_1$). On IT$_1$, if Jones knows that p, then: (a) p is true; (b) Jones believes that p; and (c) Jones' belief that p rests on infallible justification (i.e., p is epistemically certain for Jones). Put more succinctly, if Jones knows that p, then Jones believes that p and the belief that p is epistemically certain for Jones.

There are different versions of infallibilism; a common one might be called *internalistic infallibilism*. This version holds that epistemic certainty is a matter of having beliefs that are true *a priori* and knowable by rational intuition, or are matters of self-awareness and thus properly basic beliefs. In sum, the infallibilist holds that knowledge is as Robert Fogelin (1994, 28) states: "S knows that p iff S justifiably came to believe that p on grounds that establish the truth of p."

IT$_1$ is a normative thesis: infallibility is requisite for propositional knowledge. Since infallibility is incompatible with fallibility and with epistemic luck, the inclusion of epistemic certainty as a necessary condition for propositional knowledge enables advocates of IT$_1$ to avoid Gettier problems. Given the points in this introductory section, I turn to a discussion of the aporetics of EI with respect to academic education.

2. An Aporetic Tetrad

Consider the aporetic tetrad below. "S" refers to some academic subject which is not wholly a matter of mathematics, logic, moral intuition, or self-knowledge.

1. There is some human person who possesses an academic education in S.

2. The possession of an academic education in S entails the possession of propositional knowledge about S.

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[2] Roughly, to say that p is epistemically certain for S is to say that S cannot be wrong that p given S's evidence e for p. This position is called epistemic infallibilism (EI). Several contemporary philosophers have argued for EI. For example, Julien Dutant (2016) supports EI and holds that it avoids Gettier problems. Fred Dretske (2015) also argues for something like EI, holding that if one knows that p, then one cannot be wrong that p given one's reasons for p. Dretske notes that this is a lesson from Gettier's paper. I will note additional advocates for EI later in the paper.

3. The possession of propositional knowledge about S entails epistemic infallibility about S.

4. No human person possesses epistemic infallibility about S.

Each limb of this tetrad is defensible, yet it cannot be the case that all are true. The statements are collectively inconsistent such that if any three are true, the fourth is false. Consider arguments for each limb, starting with (1), which is empirically defensible.

According to the U.S. Department of Education National Center for Education Statistics (NCES) (2022), in 2018-2019 in the U.S., 160,600 bachelor's degrees were awarded in the social sciences and history, 121,200 bachelor's degrees in the biological and biomedical sciences, and 116,500 bachelor's degrees in psychology. These degrees were conferred by postsecondary institutions recognized by the U. S. Department of Education. Such recognition indicates that the institutions provide academic education to students, and thus at least some of the degree recipients are educated in their respective disciplines. If we consider the cumulative number of bachelor's degrees awarded in these disciplines in 2018-2019, it is plausible that there is at least one person who possesses an academic education in S. Moreover, according to the American Academy of Arts and Sciences (AAA&S) (2021), 202,665 bachelor's degrees in the humanities were conferred in the U. S. in 2018. Again, it is reasonable to conclude that at least one of the degree recipients is academically educated in S.

Given the working definition of *academic education* in Section 1 and the traditional assumption on the nature and aims of education, arguably, (2) is true by definition. For the sake of space, I will say nothing more in defense of (2) here. However, I will revisit (2) in Section 7.

(3) is a version of EI. Nevin Climenhaga (2021) has argued that EI explains eight plausible and philosophically significant theses about propositional knowledge better than Epistemic Fallibilism (EF) does. EF (both the invariant and the contextualist kinds) holds that knowledge is consistent with possessing justification that is probable to some degree greater than .5 but less than 1. Hence, on EF, knowledge that p is consistent with the possibility of being wrong that p given one's evidence for p. The advocate of EF holds that one can *know that p* and at the same time lack *epistemic certainty that p*. The EF-advocate need not view epistemic certainty as a different kind of epistemic status. Rather, epistemic certainty can be construed as the highest degree of justification and thus the highest form of knowledge. For example, Roderick Chisholm (1989, 10-12) takes epistemic certainty to be the highest level on a range between that which is probable and that which is certain.

Climenhaga presents an abductive argument that, compared to EF, EI is a better explanation for the following eight claims: (a) there is a qualitative difference between knowledge and non-knowledge; (b) knowledge is valuable in a way that non-knowledge is not; (c) subjects in Gettier cases do not have knowledge; (d) if S knows that p, then p is part of S's evidence; (e) if S knows that p, then $\tilde{\,}p$ is epistemically impossible for S; (f) if S knows that p, then S can rationally act as if p; (g) if S knows that p, then S can rationally stop inquiring whether p; (h) if S knows each of $\{p_1, p_2, \ldots p_n\}$, and competently deduces q from these propositions, then S knows that q. Given the explanatory power and scope of EI, one is reasonable in accepting IT$_1$.

There are additional reasons to support EI. Arguably, EI avoids a vagueness problem that faces EF. What constitutes a sufficient degree of epistemic justification? Supposing one can accurately represent this degree with a number, which is debatable, should one select an epistemic probability of .501? Is it .7? Perhaps .9? For any answer, it seems a sorites problem looms. One might ask "Why *that* number? Is the selection of that number arbitrary?" Infallibilists can answer that 1 is the only non-arbitrary number; only an epistemic probability of 1 is sufficient for completely reliable justification, since anything less permits the possibility of error and therefore is unreliable to some degree. For instance, suppose that there is a jar of 500 jelly beans. You know that the jar contains 499 red beans and one blue bean. Without looking, you reach into the jar and grab one bean. You are reasonable to claim that the bean is red; after all, the probability is .998. Yet improbable events occur. You could be wrong: the bean might be blue. The infallibilist can say that only an epistemic probability of 1 is sufficient for reliable justification. Anything less is arbitrary and unreliable to some degree.

Further, only an epistemic probability of 1 is adequate to avoid taking an arbitrary position concerning the problem of epistemic luck. How much luck is too much for a JTB to count as knowledge? For any number selected as a limit, the question of arbitrariness arises. The infallibilist can avoid this problem: any luck at all is too much; only an epistemic probability of 1 is adequate to avoid the luck problem. If one has epistemic certainty for one's belief, then no epistemic luck threatens one's belief.

There are also problems of encroachment to consider. Take a modification of the jelly bean case. Suppose you know that you are severely allergic to blue jelly beans, but not to red ones. Blue beans are a risk to your life. Hence, the stakes are high. Is a probability of .998 good enough if a probability of 1 is available? Arguably, one is rational to look at the selected bean to confirm it is not blue, and even to ask a friend for a second look. This is a problem of pragmatic encroachment which

counts in favor of infallibilism. If one's probability is 1, there is no need to confirm the color of the bean. There are similar problems of moral and religious encroachment which support infallibilism. As Panayot Butchvarov (1970, 270-71) puts it, "Where the truths in question are of the greatest importance, as philosophical truths usually are, where what is at issue is the immortality of the soul and the possibility of eternal damnation, the existence of an external world, of other persons, of God, or of a real past, mere evidence, however, good, is not enough – it is knowledge, impossibility of error, that we demand."

Consider also the Meno Problem, which is relevant to Climenhaga's claim (b). In Plato's *Meno*, Socrates and Meno discuss the nature of knowledge. Meno asks about the difference between knowledge and true belief. He wonders if there is a real difference, and assuming there is, why knowledge is better. Socrates responds by comparing true belief to one of Daedalus' statues. The statues are beautiful, but not grounded and hence might move away. Thus, they are more valuable if tethered. Similarly, a true belief is good but falls short of knowledge. Knowledge has greater value because it is rationally grounded, whereas true belief is ungrounded. According to Socrates, knowledge is true belief plus a reasonable justification to ground the belief.

> True opinions are a fine thing and do all sorts of good so long as they stay in their place, but they will not stay long. They run away from a man's mind; so, they are not worth much until you tether them by working out the reason… Once they are tied down, they become knowledge, and are stable. That is why knowledge is something more valuable than right opinion. What distinguishes one from the other is the tether. (Plato, 2009, 381-382)

What is the tether? It is a reason or justification that *reliably* holds the belief in place. Plausibly, epistemic certainty is the best candidate for tethering because such certainty is the most reliable, the simplest, and the only non-arbitrary candidate. If the tether is fallible or lucky, it is possible that the belief wanders away.

There are further reasons for accepting (3). First, suppose that one is an epistemic invariantist, thus holding that the standard for something to count as an item of propositional knowledge does not change according to epistemic context. EI provides a plausible account for the cross-context uniformity of the invariant standard: in every case of knowledge, epistemic certainty is required. Since many epistemologists are invariantists, EI might be an appealing position in epistemology with respect to the problem of explaining why the knowledge standard is invariant.

Second, EI explains why so-called concessive knowledge attributions (e.g., "I know that p but p could be false") seem both awkward and inconsistent. If knowledge requires epistemic certainty, then such attributions make no sense. As

David Lewis (1996, 549) put it, "If you claim that S knows that P, and yet you grant that S cannot eliminate a certain possibility in which not-P, it certainly seems as if you have granted that S does not after all know that P. To speak of fallible knowledge, of knowledge despite unelimated possibilities of error, just sounds contradictory… knowledge must be by definition infallible." And as Peter Unger (2002, 98) wrote: "The very particular idea that knowing *entails* its being all right to be certain is suggested, further, by the fact that knowing entails, at least, that one *is* certain…that this is a fact is made quite plain by the inconsistency expressed by sentences like 'He really *knew* that it was raining, but he *wasn't* absolutely *certain* that it was.' Such a sentence can express no truth: if he wasn't certain, then he didn't know."

Third, as Moti Mizrahi (2019) contends, the factivity of knowledge entails EI. As he puts it, to say that knowledge is factive is to say that if S knows that p, then p is true; that is, 'knowledge' is a term of success. The factivity of knowledge is a widely held position among contemporary epistemologists. Mizrahi argues by hypothetical syllogism from the factivity of knowledge to EI: (i) if S knows that p on the grounds that evidence e, then p cannot be false given e; (ii) if p cannot be false given e, then e makes p epistemically certain; therefore, (iii), if S knows that p on the grounds that e, then e makes p epistemically certain. The conclusion in (iii) is consistent with Butchvarov (1970, 50), who writes that one possesses knowledge "Clearly, only in the sense that if one is to know that p, then one's evidence that p must be such that it is *absolutely impossible* that p is false, the sense in which one's evidence that p makes a mistake about p absolutely impossible, the sense in which one's evidence that p, entails that p is true."

For (4), as Stephen Hetherington (2021, Section 1) notes, almost all contemporary epistemologists are fallibilistic in the descriptive sense that very few kinds of human belief are sufficiently justified such that it is impossible for that belief to be false given the pertinent evidence. We might call this *descriptive fallibilism*.[3] Descriptive fallibilism can be taken in a restricted sense such that for some area(s) of epistemic endeavor (e.g., meteorology, epidemiology, insurance risk assessment), no human belief in that area is infallible. Limb (4) holds that a restricted sense of descriptive fallibilism is true concerning S.

Consider additional reasons for accepting (4). First, sometimes our senses mislead us. Second, occasionally our memories are faulty. Third, in various ways,

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[3] Descriptive fallibilism is about justification, not about modality. In other words, the fallibilist does not claim merely that human beliefs about contingently true propositions are such that they could have been false, although the fallibilist might reasonably assert that modal position. Rather, the fallibilist claims that many or most human beliefs rest on epistemically fallible justification.

human beings are inclined to mistakes in deductive and inductive reasoning.[4] Fourth, if Hume is right, empirical induction is inconclusive because it presupposes that the observable world is uniform and thus that future observations will be relevantly similar to past ones. Fifth, if Descartes is right, nearly every kind of human belief is such that it is possibly false, since it might have been the result of deception or some otherwise fallible process of belief formation. Sixth, sometimes, human beings err in evaluating the relevance and/or the strength of what they take to be evidence for their beliefs. Seventh, human beings are inclined to distraction by emotions, desires, and cognitive biases in ways that can generate epistemic error. In many respects, the limitations of our cognitive faculties prevent us from obtaining epistemic certainty. As Hetherington (2021, Section 5) writes, the scope of possible sources of descriptive fallibility is "disturbingly expansive" and "could be indefinite."

3. A Challenge to IT₁

Consider the following argument, based on the aporetic tetrad above. Let us call it the "No Educated Person Argument" (NEPA). On NEPA, epistemic infallibilism combined with reasonable propositions entails that academic education is impossible outside pure mathematics, logic, moral insight, and self-knowledge.

> A. If one possesses an academic education in S, then one possesses propositional knowledge about S.
>
> B. If one possesses propositional knowledge about S, then one possesses infallibility about S.
>
> C. Thus, if one possesses an academic education in S, then one possesses infallibility about S.
>
> D. No human person possesses infallibility about S.
>
> E. Thus, no human person possesses an academic education in S.

I suspect that, for some, (E) is unacceptable. One might insist that at least one human person is educated in S. Yet as I have argued, (A), (B), and (D) are plausible. How might the infallibilist avoid commitment to (E) while accepting (A), (B), and (D)?

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[4] The existence of various deductive and inductive fallacies is evidence of the frequency of human mistakes in deductive and inductive reasoning. The Wason Selection Task study by psychologist Peter Wason provides additional evidence that human beings are inclined to err in deductive reasoning. The Linda Problem (i.e., the conjunction fallacy), based on the work of psychologists Amos Tversky and Daniel Kahneman, is evidence that humans are inclined to mistakes in probabilistic reasoning.

4. A Distinction Concerning Propositional Knowledge?

To address the question at the end of the previous section, consider what some epistemologists call "loose talk" about knowledge. We use such loose talk when useful for practical purposes. Here is an analogy: 'straight' is an absolute term, yet for practical purposes we refer to "straight lines" which are not precisely straight; similarly, 'knowledge' is an absolute term which refers to epistemic certainty, but for practical reasons we use knowledge attributions such "Jones knows that the grocery store is open now" even though Jones lacks epistemic certainty about that claim.[5]

With this conception of loose talk in mind, consider a distinction between loose propositional knowledge (LPK) and strict propositional knowledge (SPK). One has LPK if one possesses an item of JTB *sans* epistemic certainty. SPK is JTB plus epistemic certainty. Given this distinction, to possess propositional knowledge, one must have either LPK or SPK. I will call this Infallibility Thesis[2] (IT[2]).

Suppose *arguendo* that the LPK/SPK distinction is a real distinction. This move enables one to explain ordinary propositions which we take ourselves to know and which, nevertheless, are fallible such as "I know that I read the book last week" or "I know that Julius Caesar crossed the Rubicon in 49 B. C." Yet the distinction also enables one to hold a strict view of propositional knowledge that requires epistemic certainty. And when we have epistemic certainty, we *know for sure*. For example, no one goes door-to-door in Fresno, California inspecting homes and businesses to gather information for an inductive argument supporting the claim that there are no square circles in Fresno. That there are no square circles in Fresno is an item of epistemic certainty. Hence, we recognize that there is no need to continue inquiring into the matter. However, one might claim for practical purposes to know that there are electrons or that Alexander fought at the Battle of Gaugamela in 331 B. C. and yet have reason to continue investigating the topic.

Moreover, the LPK/SPK distinction accounts for the fact that we are epistemically uncertain about much of what we practically take ourselves fallibly to know; indeed, epistemic uncertainty is a fundamental aspect of human life. Such uncertainty is a challenge across many important areas of human endeavor, including the sciences, philosophy, historiography, religion, and political thought. With this distinction in mind, we can revise the aporetic tetrad as follows:

1. There is some human person who possesses an academic education in S.

2*. The possession of an academic education in S entails the possession of either

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[5] This way of thinking about loose knowledge attributions goes back at least to Peter Unger (1971) and (1975).

       LPK about S or SPK about S.

    3*. The possession of SPK about S entails infallibility about S.

    4. No human person possesses infallibility about S.

This revision eliminates the *aporia*, making it acceptable to affirm each limb of the tetrad. On the basis of this revision, we can construe the NEPA as follows:

    A*. If one possesses an academic education in S, then one possesses either LPK about S or SPK about S.

    B*. If one possesses SPK about S, then one possesses infallibility about S.

    C. Thus, if one possesses an academic education in S, then one possesses infallibility about S.

    D. No human person possesses infallibility about S.

    E. Thus, no human person possesses an academic education in S.

Call this argument NEPA2. Here, (C) does not follow from (A*) and (B*), and thus (E) does not follow. Given the distinction between LPK and SPK, NEPA2 is a non-sequitur.

    By introducing the LPK/SPK distinction, it seems one can accept IT2 and hold that there is some human person who possesses an academic education in S. Such a person would possess LPK about S. In sum, IT2 does not entail skepticism about the efficacy of education. By extension, IT2 does not entail that we lack loose, practical knowledge of many things in ordinary life that are nevertheless based on fallible justification. Rather, IT2 holds that we lack epistemic certainty regarding our items of loose knowledge. According to this reply, the epistemic infallibilist can avoid commitment to (E).

5. Objections So Far

Objection 1: The distinction between LPK and SPK is illegitimate. These are not two kinds of propositional knowledge. Rather, they are in different epistemic categories.

    To start, this objection can be addressed by reiterating that LPK/SPK is a real distinction. There is a genuine difference between infallible knowledge and fallible yet reasonable true belief. We sometimes use 'know' to refer to epistemic certainty and sometimes to mean a justified belief that is true but might be mistaken. The LPK/SPK distinction does justice to these different uses of the term 'knowledge.'

    Moreover, the distinction likely is acceptable to epistemic fallibilists, since they already accept the difference between fallible propositional knowledge and propositional knowledge which is epistemically certain. And the distinction might be acceptable to infallibilists who are open to recognizing that a JTB *sans* epistemic

certainty can possess a relatively high degree of epistemic quality and thus count in practical affairs as a case of knowledge, loosely speaking. If not vulnerable to a Gettier challenge, such cases possess an epistemic pedigree which seems sufficient to count as ordinary knowledge in the loose sense of the term.[6]

Objection 2: Infallibilism entails an unwarranted skepticism that does not justly recognize our common views of propositional knowledge. We know many things despite the fact that such items of knowledge are fallible.

Again, this objection can be answered. The LPK/SPK distinction allows for loose knowledge attributions, which affirms ordinary language about knowledge with respect to cases of fallibleness; yet the distinction permits a stricter sense of propositional knowledge which accounts for common language about certainty. On this view, IT$_2$ does not entail unwarranted skepticism. Even if infallibilism entails skepticism about much of what we take ourselves to know, the explanatory benefits of EI outweigh the epistemic costs of any skepticism associated with it.[7] If it turns out that we do not know much of what we take ourselves to know, *sic vita est*.

With respect to supposed cases of fallible propositional knowledge, the strong infallibilist can deny that such cases are in fact items of propositional knowledge, even if the term "knowledge" is used to discuss them. The strong infallibilist can say that normatively or prescriptively appropriate uses of "knowledge" are reserved for epistemic certainty, even if it is a descriptive fact that people loosely use "knowledge" to refer to cases of reasonable belief which fall short of epistemic certainty. Ordinary language use is not enough to prove that cases of fallible justification count as knowledge, because it is common for human beings to use language incorrectly or loosely for the sake of conversational convenience.[8]

Objection 3: According to Agrippa's Trilemma, it is not possible to believe any proposition *p* on the basis of adequate justification. Such justification requires some other proposition *q* to provide evidential support. But for any *q*, either (i) *q* needs support from another proposition *r*, which generates a vicious infinite regress; or (ii) *q* is supported in virtue of a vicious circularity (i.e., either *q* supports itself in a circular manner, or *p* supports *q* in a circular manner); or (iii) *q* is accepted in an arbitrary manner. Each lemma is rationally unacceptable. The version of EI addressed in this paper holds that at least some propositions are adequately justified: propositions in mathematics and logic, moral propositions (assuming moral

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[6] I will press this objection further in the section "A Final Objection."

[7] See Climenhaga (2021).

[8] This point signifies a deeper problem with IT$_2$, which I will address in the section entitled "A Final Objection."

intuitionism), and propositions concerning self-knowledge. Agrippa's trilemma shows that even these propositions are not justified.

In response to this objection, it should be noted that the trilemma presupposes that any justified proposition must be justified by some other justified proposition. A foundationalist can deny this assumption by holding that some propositions are self-evident and thus properly basic. The advocate of IT₂ who accepts foundationalism can claim that, at least with respect to SPK, knowledge is possible in some cases. Such cases involve propositions known with epistemic certainty; these propositions are self-evident either in the sense of being *a priori* truths knowable by rational insight or being properly basic beliefs concerning self-knowledge.

Objection 4: EI undercuts itself, since one cannot claim to know EI with certainty. This undercutting factor weakens the infallibilist's claim.

My response to this objection is that it is not a serious problem for the infallibilist, since the infallibilist need not claim certainty about EI, but may claim to possess a reasonable belief about EI.

6. Extending the Distinction

The infallibilist is positioned to hold that IT₂ provides explanatory benefits in virtue of extending the use of the LPK/SPK distinction to other areas of human life in which we take ourselves practically to know. For example, in the sciences, history, government and political thought, and ordinary instances in which we rely on our senses or our memories, we take ourselves to know that which rests on fallible justification. For instance, as I write this sentence, there is a blue vase sitting on the table in front of me. And I remember having toast and coffee for breakfast this morning. Despite the fallible nature of these beliefs, it is common to consider them practically as examples of knowledge in the loose sense.

To elaborate, take a case from political thought: intelligence analysis. Intelligence analysts are responsible for collecting, evaluating, and disseminating intelligence information that meets standards of accuracy and justification. Ideally, items of intelligence value are items of propositional knowledge. Such analysts are responsible for distinguishing between claims of knowledge and claims which fall short of knowledge. For instance, an intelligence analyst might be tasked with evaluating information regarding political and economic stability in Latin America and transforming that information into practical knowledge that can help an American diplomat responsible for the development of U. S. foreign policy concerning that part of the world. But according to the intelligence analyst John S. Mohr (2017) "Uncertainty is among the few certainties in the intelligence field ..."

Plausibly, Mohr is referring to epistemic certainty and not merely subjective certainty.

Mohr's claim presents a paradox: the field of intelligence analysis aims at propositional knowledge yet is marked by epistemic uncertainty. This is no mere intellectual paradox or ivory-tower problem: it has practical weight with respect to matters of government, national security, and diplomacy. But suppose that the distinction between LPK and SPK resolves the paradox. In this case, intelligence professionals can responsibly claim to possess LPK even if their epistemic uncertainty prevents them from claiming SPK. An extension of the distinction into other important areas of practical human affairs enables an infallibilist to block the general objection that EI fails to do justice to ordinary epistemic life in areas such as legal analysis, jury deliberation, practical planning and decision-making, insurance underwriting, etc.

The distinction between LPK and SPK is relevant to other problems in epistemology, such as the problem of the criterion. According to this problem, every claimed item of *knowledge that p* is vulnerable to questions such as: "On what basis can you determine that this claimed item of *knowledge that p* is in fact an item of such knowledge? What criterion do you use to determine between knowledge and non-knowledge with respect to this case? And how do you know that your claimed item meets your criterion?" If one claims to possess such a criterion C, the following questions can be asked: "How do you know that C? And how do you know that your *knowledge that p* meets the standard of C?" If the answer involves an appeal to some other criterion C^*, then a vicious infinite regress is generated. A skeptic can thus claim that there is no propositional knowledge.

There is a way out of this regress. If *p* is evident, one might claim *knowledge that p* and yet not claim any criterion for recognizing such knowledge. For example, the LPK/SPK distinction enables a foundationalist to hold that SPK does not require some independent criterion which itself requires another criterion of justification, *ad infinitum*. Regarding SPK, some propositions of mathematics, logic, morality, and self-knowledge are knowable immediately and infallibly. Nevertheless, LPK remains open to the problem of the criterion. Here, one can take a particularist approach to items of LPK: it is permissible to claim loose knowledge about many things without needing a criterion. Then one can use one's items of clear LPK and SPK to develop a pertinent criterion.[9]

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[9] See Chisholm (1989, 6-7) for a discussion of particularism.

7. A Final Objection

The LPK/SPK distinction, if feasible, seems to enable the epistemic infallibilist to avoid the *aporia* by denying (3) in the tetrad. Given the distinction, it is not the case that the possession knowledge about S entails infallibility about S. One can have LPK about S. Moreover, the distinction enables the epistemic infallibilist to deal with other important problems in epistemology.

Yet there is an objection which has not been adequately pressed: the distinction is not feasible. It ignores the very standard of epistemic infallibilism. Hence, a strict epistemic infallibilist might view the distinction as an attempt to have it both ways, to be at once a fallibilist and an infallibilist. This will not work, since only epistemic certainty does the trick of reliable justification. For instance, the epistemic infallibilist can claim that there is no non-arbitrary way to determine how much justification is needed for an item of LPK. Moreover, the arguments against EF in Section 2 seem to count as arguments against LPK. Hence, according to the commitments of EI, so-called LPK is not genuine knowledge. 'Loose' in "loose knowledge" functions as an *alienans* adjective. Only SPK counts as knowledge. Thus, a legitimate EI cannot appeal to LPK as a form of knowledge, since EI holds that knowledge *requires* epistemic certainty. As such, the LPK/SPK move fails. Given these challenges, what are some alternatives for an epistemic infallibilist to respond to the tetrad?

I doubt that many contemporary epistemologists would deny (4) of the tetrad. Hence I will not explore that option here. We are left with either the denial of (1) or of (2). The epistemic infallibilist could reject the LPK/SPK distinction, hold to IT1, and deny (1). On this option, no human person is academically educated in S. Those who successfully undergo academic courses in S are not educated in S. Rather, they obtain rationally informed, epistemically probable positions concerning S which nevertheless fall short of academic education. According to this view, academic education entails propositional knowledge, which entails epistemic certainty. Therefore, although academic education is possible in areas such as mathematics and logic, such education is impossible for humans in S. Here, we must content ourselves with some degree of epistemically probable belief which lacks certainty and hence is fallible. Let us call this Option A. This option challenges a common assumption that education is possible in areas such as the sciences and the humanities.

By way of initial evaluation, I suspect that those who have undergone rigorous academic study in, say, history or biology might find unsavory the claim that they are not educated in their respective disciplines. In addition, colleges and universities claiming to offer such education might find the claim unacceptable, except perhaps for any infallibilists working in their philosophy departments. Nevertheless, the

infallibilist could bite the bullet here and insist that the cumulative evidence for EI outweighs the *prima facie* implausibility of skepticism regarding education outside of mathematics and logic.

An infallibilist could also reject the LPK/SPK distinction, affirm IT₁, and deny (2). On this option, it is not the case that the possession of an academic education in S entails the possession of propositional knowledge about S. One who successfully completes a course of academic study in S can be academically educated in S and yet not possess knowledge about S. Such education presumably would involve acquiring justified, true beliefs about S which are sufficient to qualify as educated beliefs but do not count as knowledge. On this view, academic education might also involve the cultivation of the intellect, the fostering of human flourishing, the acquiring of a mature capacity for judgment, know-how, and other goals which have also been considered important aims of education. Let us call this Option B.[10] This option challenges the traditional view that education provides knowledge.

Again, I suspect that those who have undergone appropriate academic study in S-disciplines might not like the claim that they lack knowledge in their respective disciplines. But here too, the infallibilist could stand firm and insist that the evidence for EI outweighs the *prima facie* implausibility that propositional knowledge in S is impossible. Moreover, as Mizrahi (2019) notes, the fact that a claim is difficult for some people to accept is not effective evidence against that claim.

I noted earlier in this section that we are left with either the denial of (1) or the denial of (2). This is not exactly correct. The infallibilist could take a mysterian position and deny that the tetrad is collectively inconsistent. Each limb is true, yet we cannot grasp how they are collectively consistent. Or one could accept that the limbs of the tetrad are inconsistent and yet affirm each limb, appealing to some version of dialetheism. For the sake of space, I will not pursue these options here except to make two points: first, although mysterianism is a reasonable position in some cases, generally it should be taken as a last resort – after all options have been exhausted – and that it should not be used as an *ad hoc* move; second, as Rescher (2009, 3-4) notes, since a primary goal of rationality is to maintain logical consistency, the resignation to accept inconsistency is hardly a rational posture.

8. The Implications of Options A and B

Suppose an infallibilist takes Option A. On this option, no person is academically educated in any S-subject, since no one has propositional knowledge in S. Hence,

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[10] Option B would indicate the difficult claim that education in the sciences does not provide knowledge, and perhaps even that scientific knowledge is unobtainable for us.

pace the traditional view, the basic epistemic aim of academic education is not the acquisition of propositional knowledge. It is unreasonable to hold that an important human endeavor such as education imposes on us goals which are unreachable by us. Therefore, if there are aims of academic education, they cannot include propositional knowledge, at least not in S-subjects. Instead, the goals of academic education might include epistemic goods such as reasonable belief, the sharpening of intelligence and the faculties of critical inquiry, the improved ability to engage in something like the Socratic Method, cultivated abilities for discernment, intellectual character development, the acquisition of epistemic virtues, and the general increase in human flourishing with respect to the life of the mind.

Suppose instead that the infallibilist opts for B. Here, one can obtain an academic education in S without acquiring propositional knowledge about S. On this view, the nature of education does not involve the acquisition of propositional knowledge. Again, perhaps education involves such Socratic values as the cultivation of the intellect and the character, the improvement of the human ability to reason, the advancement the human capacity to flourish, or the acquisition of important know-how and experiences. However, propositional knowledge is not a necessary condition for education. This option poses a problem to the traditional assumption that knowledge is essential for education.

Jason Baehr (2016, 8) asks: "How does the goal of intellectual character growth stand relative to other educational goals such as critical thinking, knowledge-acquisition, and civic responsibility?" Note that this question presupposes that the acquisition of knowledge is a goal of education. This presupposition is consistent with the traditional assumption addressed in this paper. Yet I have argued that the acquisition of knowledge is not a goal of education because such acquisition is not feasible in S-subjects. Nevertheless, it is coherent to hold that intellectual character development is a goal of education. Indeed, Baehr (2016, 4) notes that the overlap between virtue epistemology and education is a lacuna in the current philosophical literature.[11] This paper addresses the gap by providing reasons to conclude that knowledge-acquisition is not an achievable goal of education but that intellectual character development is an important goal.

Suppose we characterize *rational human agency* roughly as the capacity to choose and act on the basis of relevant reasons in typical circumstances that require rationality. Options A and B each have interesting implications for rational human agency. This paper has briefly addressed issues in government and political thought,

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[11] Baehr's book is a rich source of information on epistemic virtues that are achievable in education, such as proper open-mindedness, inquisitiveness, intellectual humility, proper skepticism, and intellectual perseverance.

legal analysis, practical planning and decision-making, insurance underwriting, various encroachment issues, practical cases of 'knowledge,' and assumptions that one has knowledge. If we lack education and/or knowledge in areas outside of mathematics, logic, and moral insight, then this lack would influence our agency in the areas noted above. Moreover, such lack of knowledge or education would influence pedagogical goals and methods with respect to how knowledge is imparted and acquired in the classroom. However, the educative emphasis on intellectual character growth would be beneficial for human agency insofar as the former cultivates the human capacity for reason, which is crucial for the success of the latter.

In sum, the infallibilist can wield a strong support for EI. Section 2 presents at least 14 plausible reasons in favor of EI, making a substantial cumulative case for this view. It therefore seems that the traditional assumption about education is difficult to accept, despite the challenging implications of rejecting the traditional assumption.

9. Conclusion

In this paper, by posing an aporetic tetrad, I investigated EI, prompting the development of a cumulative case argument for EI which makes the traditional view of education improbable. Given the case for EI in this paper, it appears that either education does not provide knowledge in many important academic subjects, or that we cannot obtain education in these subjects. We have consequently uncovered questions for further investigation: how might philosophers and other theorists who affirm the traditional assumption respond? Since there are good reasons to accept EI, should those amenable to the traditional view modify their positions about the nature and epistemic aims of education? Should they maintain those positions and instead attempt to refute the case for EI? Does EI also threaten the view that we have scientific knowledge, since the typical propositions of science are not knowable with epistemic certainty?

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EPISTEMIC STANDARDS AND VALUE:
A PUZZLE

Jumbly GRINDROD

ABSTRACT: In this paper, I present a puzzle that arises if we accept i) that knowledge is more valuable than mere true belief and ii) that whether a person counts as knowing is dependent upon a context-sensitive epistemic standard. Roughly, the puzzle is that if both claims are true, then we should always seek to keep the epistemic standard as low as possible, contrary to what seems like appropriate epistemic behaviour. I consider and reject a number of different ways of avoiding this consequence before presenting my own solution to the puzzle: that any view that posits a context-sensitive epistemic standard must relativize epistemic value as well.

KEYWORDS: epistemic standard, epistemic value, pragmatic encroachment, contextualism

1. The Puzzle

Here are two widely-defended claims:

> VALUE: Knowledge is more valuable than mere true belief. (Swinburne 2001; Zagzebski 2003)

> CONTEXT: What counts as knowing within a given context depends upon a context-sensitive epistemic standard (Cohen 1988; Stanley 2005; DeRose 2009; Fantl and McGrath 2009)

VALUE is of course a common claim made within the epistemic value literature and has as its origins Plato's *Meno*. Some will resist this claim. For example, Kvanvig (2003) has argued that it is impossible to identify a valuable property that knowledge has and true belief lacks and that would serve to differentiate between knowledge and Gettiered belief. I am not concerned with Gettier cases here, and for much of this paper I could accept the weaker claim that knowledge is generally more valuable than true belief, or qualify VALUE such that it does not entail that knowledge is more valuable than Gettiered belief. For simplicity's sake, however, I will keep VALUE in its stronger form. CONTEXT should be viewed here as something that would be accepted by pragmatic encroachment views of knowledge as well as by epistemic contextualists (although more will be said on this shortly). The key idea uniting such views is that certain contextual factors that were previously thought to

be epistemically irrelevant in fact affect the epistemic standard by which we determine whether a subject knows or not.

Considering that these two claims are often defended, or even assumed, it is worth considering whether they can be held concurrently. This paper is concerned with a possible unattractive consequence of doing so: if knowledge is more valuable than mere true belief, and we generally know more when the epistemic standard is set at a lower, less demanding level, then it looks like we should always aim to keep the epistemic standard as low as possible, and look upon any raising of the standard as regrettable.[1]

If knowledge is more valuable than mere true belief, and we generally know more when the epistemic standard is set at a lower, less demanding level, then, other things being equal, it looks like it would be a better state of affairs if we kept the epistemic standard as low as we can. If knowledge is what we are after, then why not just ensure that we keep the epistemic standard as low as possible?

There may of course be reasons why one finds themselves operating with a particular epistemic standard, and the apparent value lost by operating with a higher epistemic standard may be outweighed by other considerations. But even with this proviso in place, the thought that, other things being equal, a given agent is better off operating with a lower epistemic standard is an odd one, and this is certainly not how the picture of an epistemic standard is usually painted. Usually, it is thought that a varying epistemic standard reflects the fact that different levels of inquiry are appropriate to different contexts – so that it is entirely appropriate that in the courtroom we employ a more stringent standard than we do in the pub. An exception may be contextualist accounts of sceptical arguments, which are sometimes viewed as a way of painting the sceptic in a negative light: when the sceptic raises the epistemic standard to such a high level, and in doing so deprives us of knowledge of the external world, they do something regrettable – they act like a bully (Brister 2009). But the worry here is that VALUE and CONTEXT, along with certain auxiliary claims linking value and desire or action, entail that, *ceteris paribus*, we should always strive to keep the epistemic standard as low as possible, and disapprove of instances where it is raised. Other things being equal, we should avoid the courtroom and stay in the pub. I take it that this is isn't a particularly attractive

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[1] In considering this problem, I do rely on the idea that if something is valuable, then (in some appropriately weak sense, and all other things being equal), we ought to try to attain it, and also that it is appropriate to *hope* that we attain it. Without spelling out precise principles that make good of this idea, I take it that the rough idea itself is plausible enough insofar as it makes sense of the links between value and rational action. Indeed, the original motivation of positing the value of knowledge is precisely that it is something that we tend to aim and hope for.

consequence of the view we are considering. In what follows, I will consider and reject a range of responses to this puzzle, before presenting my own solution.

2. Knowledge Attributions and Knowledge

In outlining CONTEXT, I was explicit that the claim would be accepted by both pragmatic encroachment theorists and epistemic contextualists. But perhaps it is not appropriate to group the two sets of views together in this way. It could be claimed that there are two senses in which one might accept (as CONTEXT states) that *what counts as* knowing within a context depends upon a context-sensitive epistemic standard, and only one of these senses leads to the puzzle that we are considering. In particular, the epistemic contextualist is providing an account of the truth conditions of knowledge attributions, and so only accepts CONTEXT to the extent that it is equivalent to the claim that the truth value of knowledge attributions can vary according to a context-sensitive epistemic standard. Accordingly, the epistemic contextualist isn't strictly committed to the claim that in lowering the epistemic standard, we thereby increase the amount of *knowledge* around; they are only committed to the claim that lowering the epistemic standard will render more knowledge-attributing sentences true. In this way, they could avoid the puzzle. That contextualism avoids the puzzle might even be seen as a consideration in its favour.

However, I don't think the contextualist can easily evade the puzzle this way. For this response to work, there must be some plausibility in the idea that we can view the two projects of i) capturing the truth conditions of knowledge attributions and ii) capturing the nature and extension of knowledge, as independent of one another. In providing an account of when sentences containing a denoting term are true (rather than merely acceptable) we are thereby providing an account of the extension of that term i.e. the set of things in the world to which the word applies and the set of things to which it does not. So, in providing an account of the truth of knowledge attributions, it is typically thought that we are giving some account of where knowledge is present and where it is absent. To suggest otherwise seems to imply either that the contextualist is not providing *truth* conditions in the fullest sense of the word "true" or that epistemologists are not really working on knowledge in the ordinary sense, contrary to what their methodology would suggest. The burden of proof is on those who think that there is no such link between knowledge and the truth of knowledge attributions to explain why that is the case (Grindrod 2020). Without any such explanation, the default position should be that the contextualist is just as subject to the puzzle as the pragmatic encroachment theorist.

3. We Cannot Lower the Standard

A second response is to claim that the epistemic standard is not something we *can* lower, so we don't have the choice available to us to lower the standard in order to maximise the amount of knowledge we possess. It is certainly true that, whenever some account of the epistemic standard is given such that it varies across different contexts, a detailed account is given of how the standard can be raised, but little is said on how it can be lowered. There is usually mention of the epistemic standard returning to a lower point once the conversation has moved on sufficiently. One is given the impression that the epistemic standard is elasticated, and is stretched upwards by raisings, only to return to its ordinary resting position.

But even if it is the case that we have no mechanism available for lowering the epistemic standard beyond waiting for the conversation to move on, this does not get rid of the problem. For it would still be the case that, *ceteris paribus*, any raising of the epistemic standard should be disapproved or viewed as regrettable for the loss of value that accompanies it. Yet this is not, I take it, an attractive view to hold (e.g. it is not regrettable that science labs or courtrooms employ a more stringent epistemic standard).

4. We Have No Control Over the Epistemic Standard

In response to the previous reply, it might be claimed that we actually have no control over the epistemic standard going up or down. Robin McKenna (2013) has argued for a view of this kind. He has argued that "S knows p" is true in c only if S can rule out the alternatives that *ought to be* salient in c. The idea here is that there is a normative fact about which alternatives ought to be salient within a context, and we as epistemic agents have to try to track what those alternatives are. It is not something that is within our control via the manoeuvres made within a context.

But even this view would not really dispose of the problem, for even if changes in the epistemic standard are not something that is under our control, we are still able to *hope* that the standards remain low for the added value that it brings, and bemoan that it is ever raised. Just as we can hope that a hurricane doesn't hit our town for the bad consequences it will bring, even if we have no control over the matter, the thought is that we can hope that our normative situation is such that the standard does not need to be raised. Yet even this is an unattractive consequence of the view and so no solution to the puzzle is provided.

5. Epistemic Value As a Function of Both Position and Standard

Perhaps the best solution to the puzzle is to supplement our theory of epistemic value with claims beyond VALUE. In particular, we could avoid the puzzle if our theory of epistemic value states that knowledge according to a higher epistemic standard is more valuable than knowledge according to a lower epistemic standard. In that case, raising the epistemic standard would not be regrettable because it at least gives us the opportunity to reach this more valuable state. Epistemic value could be viewed as a function of both epistemic position (i.e. whether the subject knows or not) and epistemic standard, with the epistemic standard serving as a kind of multiplier such that the higher the standard, the more valuable the knowledge is. This would avoid the undesirable consequence that we should always seek to lower the epistemic standard. It may well be the case that raising the epistemic standard will rob you of your knowledge, but at least in a high standards context an even more valuable epistemic state would become available to us.

However, with this solution we get something of the reverse problem occurring. If we have a theory of epistemic value whereby knowledge in a higher standard is more valuable than knowledge in a lower standard, then it seems that those of us who possess reasons for their belief that would be sufficient for high-standards knowledge are incentivized to seek out those higher standards. But again, it seems implausible that we are incentivized in this way. We don't have any inclination to adopt the highest standard that our epistemic reasons will allow. Instead, the epistemic standard is determined by the kind of inquiry we are engaged in, the practical stakes involved in being right, the time and energy we have available to dedicate to the inquiry, as well as where our interests and natural curiosity lie. This will determine whether or not we engage in a high-standards inquiry, and the idea that there is a default pressure towards adopting a higher standard is in tension with this.

Furthermore, some version of the original problem still remains. Say S believes p and is currently operating under an epistemic standard such that their belief does not constitute knowledge. There is little prospect of them gaining any further evidence or justification for their belief (e.g. it concerns something that happened to them alone a long time ago). But S's reason for believing is such that, S *would* count as knowing were a lower epistemic standard in play. On the view we are considering, it seems that S would still *ceteris paribus* be better off seeking out the lower standard. These cases suggest that it would be wrong to have the epistemic standard figure in our calculations of epistemic value. If anything, it is more plausible that the epistemic standard is set based on the kind of inquiry that would prove

epistemically valuable rather than epistemic value itself being determined by how the epistemic standard is set.

6. Epistemic Value Relative to a Context

To arrive at our final position, we have to begin with an initial suggestion for solving the puzzle. Perhaps epistemic value does not attach to knowledge *per se* but attaches to knowledge in virtue of some underlying property that knowledge possesses to a greater degree than mere true belief (say, justification). Imagine for instance, that in order to know, you require some minimal level of justification, and imagine further that it is the justification of a belief that determines its value. In that case, this would seem to make sense of VALUE – knowledge is more valuable than mere true belief because it enjoys a higher level of justification. Furthermore, we could understand CONTEXT as the claim that the threshold of minimal justification required to count as knowing can vary across contexts. Understood in this way, there would be no added value in moving to a lower epistemic standard, as the underlying property of value – justification – would remain invariant.

Perhaps this is the right approach to take to avoid the puzzle. Elsewhere, I have argued that a contextualist version of this account of epistemic value as attaching to justification may prove to be problematic in accounting for the distinctive value of knowledge (Grindrod 2019). I won't press that point here, however. Instead, I want to question whether this view is really consistent with VALUE. Consider S1's belief that p that is held in c1 and S2's belief that p that is held in c2. Suppose that the justification for S1's belief is 0.8 and the minimal threshold of justification for knowledge in c1 is 0.81. So S1 doesn't know that p in c1. The justification for S2's belief is 0.75 and the minimal threshold of justification for knowledge in c2 is 0.74. So S2 does know that p in c2. By VALUE, S2's belief is more valuable than S1's. But according to the view we are considering, S1's belief is more valuable than S2's.[2] I take that it is implausible that any object could be both more and less valuable than another object at a given time and in the same respect. So it seems then that in adopting this view, VALUE must be rejected.

Instead, the most straightforward way to preserve the spirit of VALUE while rejecting its letter would be to claim that knowledge is only more valuable than true belief relative to a context:

> CONTEXTUALISED-VALUE: Knowing that p in context c is more valuable than merely truly believing p in context c.

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[2] See: (Grindrod 2019) for discussion of similar cases albeit applied to specific forms of contextualism.

This still seems to make good of the motivation behind VALUE insofar as it explains why, in any given situation, I would prefer to know rather than merely believe. But crucially, I would not be able to use CONTEXTUALISED-VALUE to infer that S2's belief is more valuable than S1's.

I suggest that CONTEXTUALISED-VALUE provides the best solution to the puzzle. But in order to adopt CONTEXTUALISED-VALUE, we need not be committed to the claim that epistemic value attaches to justification (or whatever property a sufficient degree of which differentiates knowledge from true belief). An alternative picture would be that while knowledge per se is more valuable than mere true belief, such value judgements are themselves contained within a context, so that it is essentially not possible to make value comparisons across distinct epistemic contexts. In that respect, in accepting CONTEXTUALISED-VALUE, we would not be forced into claiming epistemic value attaches to justification (or some other property of knowledge).

7. Conclusion

In this short paper, I have presented a puzzle regarding epistemic value and epistemic standards and I have presented a solution by way of relativizing epistemic value to a standard. If such views as pragmatic encroachment theories and contextualist theories want to maintain something resembling VALUE – which is widely taken to be independently plausible – they are forced to contextualise epistemic value, to make the superior value of knowledge over mere true belief relative to an epistemic standard. This may well be a plausible position for such views to hold, but it has not been previously recognised that these views are forced into this position.

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GETTIER CASES, MIMICKING,
AND VIRTUE RELIABILISM

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ABSTRACT: It has been argued that virtue reliabilism faces difficulties in explaining why the "because-of" relation between true belief and the relevant competence is absent in Gettier cases. However, prominent proponents of this view such as Sosa and Turri suggest that these difficulties can be overcome by invoking the manifestation relation. In his *Judgment and Agency*, Sosa supports this claim based on an analogy between Gettier cases and what in the literature on dispositions is called mimic cases. While there are initial motivations for the alleged analogy, I claim there are at least two arguments against it: 1. there is an asymmetry in the nature of context-sensitivity between the problem of mimicking and the Gettier problem; 2. while causal deviance and double luck can be found in both the mimic case and the Gettier case, their causal processes are different in important respects, making it challenging to see them as both falling under the same category. If these arguments are on the right track, the upshot is that virtue reliablists such as Sosa and Turri who describe the "because-of" relation in terms of the manifestation relation still owe us an account of why the manifestation relation is absent in Gettier cases.

KEYWORDS: Gettier cases, mimic cases, virtue reliabilism, because-of relation

Introduction

Virtue reliabilists propose to think of Gettier cases as cases in which a subject has both a relevant competence and a true belief, whereas her belief is not true *because of* her relevant competence. However, it has been argued that virtue reliabilism faces challenging problems in explaining the "because-of" relation.[1] While it seems that in Gettier cases there is a kind of causal relation between the subject's competence and her true belief, it is claimed that the relation is not established "in the right and appropriate way;" the burden, nevertheless, is on the virtue reliabilist to make clear

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[1] For a good review of the various suggestions virtue epistemologists propose for understanding the "because-of" relation, and the problems (including problems raised by Gettier cases) each of these suggestions encounters, see Greco (2012), who, in particular, discusses difficulties for four ways of understanding the "because-of" relation (the primitive, the metaphysical, the explanatory, and the epistemic understandings). Greco (2012) suggests instead that this relation should be understood as a pragmatic relation. However, it has been argued that his account is vulnerable to Gettier-style counterexamples too. For example, Miracchi (2015, 35) argues that Greco's pragmatic account delivers the wrong verdict in a case which she calls "a systematic Gettier case" (Miracchi 2015, 39).

what "the right and appropriate way" is. By invoking the manifestation relation, virtue reliabilists such as Sosa (2015; 2017) and Turri (2011; 2012) argue that virtue epistemology can overcome these difficulties. For example, in *Judgment and Agency* Sosa (2015, 31) writes:

> Manifestation enables us to go beyond the need to rely on 'the right way,' or on 'an appropriate way,' or any such phrase. The manifestation of competences and other dispositions then provides a solution to the problem of specifying 'the right or appropriate way' as it pertains to action, perception, and knowledge.

To defend the idea, virtue reliabilists draw an analogy between Gettier cases and a familiar case in the literature on dispositions. In particular, Sosa (2015, 29-31) proposes that Gettier cases are similar in relevant respects to cases which, in the literature on dispositions, are called *mimic cases*, claiming that in both cases the manifestation relation is absent. Given this analogy between being mimicked and being gettiered (I will refer to this henceforth as "the alleged analogy"), Sosa and his supporters can suggest that, in Gettier cases, manifestations of knowledge-constitutive competences are really absent and merely *mimicked*. Therefore, we can define knowledge as genuine manifestations of knowledge-constitutive competence by excluding these cases of mimicking.[2] In which case, given the alleged analogy,

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[2] There is a controversy over what Sosa and other virtue reliabilists think about the precise *stimulus* condition of a knowledge-constitutive competence. For example, Miracchi (2015, ftn.18) writes: "Both Sosa and Greco hold that … a competence is a disposition to believe truly *when one believes*" (emphasis added) (see, also, Sosa (2007, 29) and (2010, 466)). On the other hand, in *Judgment and Agency* it seems that Sosa (2015, 96) thinks of *trying* to do something as the stimulus condition of a competence: "A competence is a certain sort of disposition to succeed *when you try*" (emphasis added). It has been argued that each option (either believing or trying to believe) has its own problems. For example, Vetter and Jaster (2017) argue that if we describe trying to do something as the stimulus condition of competence, we face "the problem of wrong stimulus." Sosa (2015, 47) himself takes examples of "the [perceptual] belief that the room has gone dark [after turning off the lamp]" as a matter of "passive reactions that approximate or constitute mere reflexes," claiming that, in cases like this, "there is no freedom to intervene in what seems clearly to be a belief." Therefore, it may be infelicitous to say we *try* to believe in such cases. One the other hand, if we think that in the virtue reliabilist's view the stimulus is believing itself, Vetter and Jaster (2017, 7) claim we face a problem they call "the problem of triviality." Besides these problems for finding the precise stimulus condition, there are more general problems for a dispositional account of rational capacities such as competence (see, for example, Clarke 2015 and Riley 2017). I want to remain silent about these problems. Of course, to exclude the mentioned prima facie counterexamples to trying to believe, following Miracchi in her interpretation of Sosa and Greco, I consider believing (instead of trying to believe) as the stimulus condition of the competence in the virtue reliabilist's view. However, readers should note that sometimes believing requires trying or wanting to believe. Nonetheless, neither the controversy about the precise stimulus condition

knowledge is a manifestation of the disposition to justified true belief when one believes *in the absence of mimickers*.[3] In what follows, however, I argue against the alleged analogy, showing that virtue reliabilists cannot appeal to mimic cases to avoid difficulties raised by the 'because-of' relation.'

To this end, the paper proceeds as follows: In section 1, after a brief sketch of the idea of mimic dispositions and the Gettier challenge, I set out what initial motivations support the alleged analogy. Section 2 is devoted to showing that Sosa's version of the mimic case is not the standard version of this case. Then, in section 3, I follow two lines of argument against characterizing Gettier cases as instances of either paradigm cases of mimicking or Sosa's version of it.

1. Some Initial Motivations for the Alleged Analogy

Philosophers standardly characterize a disposition in terms of its manifestation and stimulus conditions. Consider, for instance, fragility as the paradigm case of dispositions. That a glass is fragile means that it is disposed to break when struck. For many years, the widely accepted account of dispositions was the simple conditional analysis, on which a glass is fragile iff it would break if struck. This analysis has, recently, been subject to various counterexamples. The mimic case is one of these counterexamples: here, while the relevant disposition is absent, the conditional is fulfilled.[4] Consider the following case from Smith (1977) as a paradigm case of mimicking.

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nor the more general problems for a dispositional account of competence are the focus of the present paper.

[3] Notice that, in Sosa's view, the competence which is relevant to knowledge is not every disposition to true belief when one believes; rather it is a disposition to *justified* (or in Sosa's words *in a weak sense of the term* '*competent*') true belief when one believes. Sosa (2015, 24) writes that a kind of luck "precludes Gettiered subjects from knowing something even when they believe it both correctly and competently." Thus while Gettiered subjects don't manifest knowledge, they manifest a disposition to justified true (or in Sosa's terms, competent correct) belief when one believes. The gettierized true belief is competent because it is acquired in virtue of the subject's *seat* (and not an external basis). However, we ought to be cautious about claiming that it is competent in a strong sense of the term, since it is not the manifestation of the relevant knowledge-constitutive competence. Thus the first approximation of the competence which constitutes knowledge is disposition to justified (or competent in a weak sense of the term) true belief when one believes. We should exclude Gettier cases from this competence to arrive knowledge-constitutive competence. Therefore, a knowledge-constitutive competence is a disposition to justified true belief when one believes *excluding Gettier cases*. Given the alleged analogy according to which being gettiered is an instance of mimicking, knowledge would be the manifestation of a disposition to justified true belief when one believes *in the absence of mimickers*.

[4] Finkish and masked dispositions are other kinds of counterexamples to the simple conditional

The case of Z-ray

Suppose there is a sturdy block of wood which is struck, for example, by a stone. Imagine that this strike produces a signal which immediately leads aliens to attack the block with a very powerful ray (Z-ray), which causes the block to splinter. While the block, ex hypothesi, is not fragile, by mimicking fragility, it would break when struck. Thus the simple conditional analysis makes a false prediction about the ascription of dispositions.[5]

Turning to Gettier cases, consider the following case from Gettier (1963), taken as the standard Gettier case.

The case of Smith

Smith and Jones have applied for a certain job. Smith has strong evidence that Jones will be selected. He also knows that Jones has ten coins in his pocket. Plausibly, Smith is justified in believing that p: 'the man who gets the job has ten coins in his pocket.' However, unbeknownst to Smith, he himself, and not Jones, will be selected and has ten coins in his pocket. Therefore, while Smith has a justified true belief that p, we have a strong intuition that he does not know that p.

Moreover, Sosa (2015, 13) describes the following case as a paradigm of the practical Gettier case.

The case of Archery

Suppose Archie is a skillful archer, taking a competent shot. Although the first gust of wind diverts the shot, the second one puts it again on the right track. Luckily, the shot hits the target, but Archie does not deserve credit for her success. While Archie's performance is accurate (successful) and adroit (competent), it is not apt since its accuracy does not manifest its adroitness.

Sosa does not give a detailed account of how Gettier cases are analogous to mimic cases. However, there are clear initial motivations for positing an analogy between them. For example, in both cases, success is due to a kind of causal deviance and double luck.[6] In the case of Archery, the first (bad) luck is that the first gust of wind diverts the shot, and the second (good) luck is that the second gust puts it on the right track. Likewise, in the case of Z-ray, the block's not breaking when struck by a stone is the first (bad) luck; but that it leads aliens to fire their Z-ray is the second (good) luck.

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analysis. I do not discuss these two cases in what follows.

[5] Another famous paradigm case for mimicking, from Lewis (1997), is the case of breaking a Styrofoam dish. The case of Z-ray and the case of Styrofoam dish have the same structure.

[6] Zagzebski (1966, 288-289) argues that all Gettier cases have a "double luck" structure.

Furthermore, to see a deeper similarity between these cases, note that philosophers find it helpful to distinguish between conventional and canonical dispositions.

> Conventional dispositions are typically expressed by such simple predicates as 'fragile,' … which include no explicit reference to their stimulus conditions and manifestations. Canonical dispositions, on the other hand, are explicit about their stimulus conditions and manifestations, … [for example] the disposition to break in response to being struck. (Choi and Fara 2018)

With this distinction to hand, a proponent of Sosa's view may argue in favor of the alleged analogy as follows: Both fragility and competences are conventional dispositions. On the one hand, the first approximation of a formulation of the concept of fragility is the following canonical disposition: the disposition to break when struck (call it D1 for short). On the other hand, the first approximation of formulation of the concept of competence which constitutes knowledge is the following canonical disposition: the disposition to justified true belief when one believes (D2). In the case of Z-ray, while there is a pre-theoretical intuition which falsifies the ascription of fragility to the block, the canonical disposition D1 is manifested with the help of a mimicker. Likewise, in the Gettier case, while there is a pre-theoretical intuition which avoids the attribution of knowledge to the subject, the canonical disposition D2 is manifested with the help of a mimicker. Therefore, to the extent that fragility can be described as the disposition to break when struck *in the absence of mimickers*,[7] knowledge-constitutive competence can be defined as the disposition to justified true belief when one believes *in the absence of mimickers*. In which case, knowledge is *the manifestation* of the disposition to justified true belief when one believes *in the absence of mimickers*. It seems that, with the manifestation relation and the alleged analogy to hand, virtue reliabilists can provide a solution to problems raised by Gettier cases in explaining the "because-of" relation.[8]

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[7] For such an account of fragility as a conventional disposition, see Choi (2006, 376). Of course, Choi excludes not only mimickers but also maskers and finks from the definition of fragility. The same can be said for knowledge. Moreover, elsewhere Choi (2008, 31) appeals to the constraint of non-ordinary conditions to give a general definition of mimickers. A similar line of thought is pursued by Sosa (2015, 30). I return to this point below.

[8] Miracchi (2015, 36) writes that "Sosa claims that Gettier cases are also cases of mere mimicking a manifestation of a disposition to believe truly." She complains (*ibid.*, 36-37) that "For Sosa's argument by analogy to be effective, the cases involving glasses that are structurally analogous to Gettier cases cannot be ones in which a glass manifests its disposition to shatter upon hitting something hard…. Sosa thus cannot appeal to intuitions about whether fragility is characteristically manifested in analogous cases, but rather he must appeal to intuitions about

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2. Sosa's Version of Mimicking

Before turning to an examination of the alleged analogy, it is worth noting that Sosa (2015, 29) introduces a somewhat different version of the mimic case:

> *The case of Zapper*
>
> Recall the mimicking of fragility when a fine wine glass is zapped upon hitting the hard floor. By hypothesis, the causal action of our zapper trumps the inner structure of the glass, whereby it normally shatters on impact. Still that inner structure can be causally operative, as it is through the agency of the zapper (who hates the impact on the hard floor of the fragility that he spots in the fragile glass). Despite being causally operative in that way, through the knowledge of the zapper, that inner structure is not causally operative in the right way. And this is why the fragility that we normally attribute to the glass is not really manifest on that occasion.

The crucial difference between the case of Z-ray and the case of Zapper is that while the wine glass is fragile in the latter, the block is not fragile in the former. However, there is a simple argument that Sosa's version of mimicking is not a standard instance of a mimic case. These standard instances are mimics "because they are circumstances that mimic the action of a disposition, in that they make the relevant counterfactual true. But there is no genuine disposition at all" (Bird 2007, 29). However, in the case of Zapper, by hypothesis, the genuine disposition (i.e., fragility) is present, and so, unlike Z-ray, Zapper cannot be a counterexample to the conditional analysis of dispositions. Sosa may respond that while the case of Zapper is not a standard instance of a mimic case, it is still a kind of mimicking because the manifestation (i.e., the breaking of the wine glass) does not manifest in virtue of the genuine disposition (i.e., the fragility of the wine glass); rather, in this special circumstance, the wine glass just mimics fragility. I am not sure that all prominent analyses of dispositions support this claim.[9] However, examining it is beyond my

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dispositions that are more clearly similar in structure to dispositions to believe truly." If Miracchi means mimic cases are not analogous to Gettier cases in relevant respects and that Sosa should appeal to cases that are more structurally similar to Gettier cases, I would agree with her. However, I don't know what reasons Miracchi has for this claim. As argued above, in both Gettier cases and mimic cases, we have a strong intuition that the conventional dispositions are not genuinely manifested whereas the canonical dispositions which are the first approximations of those conventional dispositions are clearly manifested. Therefore, we need an argument to show that Gettier cases and mimic cases are not analogous in the relevant respects. However, Mirachi addresses another worry about Sosa's account to which I am more sympathetic. See ft.14

[9] For example, it seems that on Manley and Wasserman's view if an object would break in some suitable proportion of stimulus conditions, its breaking is the manifestation of fragility "even if [the] object happens to be in 'bad' case" such as the case of Zapper (Manley and Wasserman 2008,

purpose here. What is important is whether either the standard mimic case or Sosa's alleged version of mimicking is analogous to Gettier cases. Thus, for the sake of argument, I assume that the case of Zapper is a different kind of mimicking, and I call this Sosa's version of mimic cases (in short, SV-mimic case).

3. Against the Alleged Analogy Between Being Gettiered and Being Mimicked

I follow two lines of argument against Sosa's analogy between being gettiered and being mimicked, showing that it would be difficult to think of the Gettier case as an instance of the mimic case.

An asymmetry in context-sensitivity:

As Manley and Wasserman (2007, 3) illustrate, many dispositional ascriptions are context-sensitive:

> Many dispositional predicates behave in exactly this way. Not only do they have straightforward comparative uses, but the corresponding positives are often context-dependent. An ordinary plastic cylinder may truthfully be described as 'fragile' in the aeronautical testing facility, for example, but not in the kitchen.

With this in mind, we can argue against Sosa in the following way: the language with which we speak about both the paradigm cases of mimicking and the gettiered justified true belief is context-sensitive. However, while in the paradigm case of mimicking, a context of assertion can be found in which the problem of mimicking disappears such that we can attribute the genuine disposition, there is not any context of assertion in which the Gettier problem vanishes such that we can attribute knowledge. This asymmetry supports the idea that the nature of being mimicked and being gettiered are not the same.

In order to motivate the claim, imagine that, in the case of the Z-ray, the context of assertion would be that we are searching for a material that can be used for protecting us against aliens' terrorist attacks by the Z-ray. Imagine, also, that there is a special kind of steel (call it K-steel) which would not break when beamed at by the Z-ray. In this context, it would be reasonable to say that, in contrast with K-steel, the block of wood is fragile. Thus, while the breaking of the block of wood is characterized as the manifestation of a mimic case in an everyday context, it can be described as the manifestation of genuine fragility in the context of defending against alien attack. On the other hand, it is highly doubtful that changing the context of assertion can make the Gettier problem disappear. Recall the case of Smith as a paradigm of epistemic Gettier cases. By changing the context of assertion, we

76). The same idea can be found in Vetter (2014).

can increase (or decrease) the standard of justification or competency. However, it does not lead us to ascribe knowledge to Smith.[10] As a result, there is a crucial difference between the context-sensitivity of the Gettier case and the mimic case, showing that they have different natures.

The same observation applies to the SV-mimic case. To see how, consider the case of weird glass.

The case of weird glass

Consider a glass that breaks if struck in normal conditions and by a standard process. Also, imagine that this glass has a weird characteristic such that it would not break in non-normal conditions like the condition of the case of zapper in which the zapper hits it firmly on the hard floor.

Now, suppose that, in the case of Zapper, the context of assertion is that we are comparing the wine glass with the weird glass. In this context, it would be plausible to say that, in contrast with the weird glass, the wine glass is fragile and manifests fragility in that circumstance. Therefore, unlike the Gettier problem, there are contexts of assertion in which both the problems of standard mimicry and SV-mimicry vanish.

Indeed, we can argue for a stronger claim. In particular, we can take an example of a disposition which constitutes knowledge and is described as a mimic case in the everyday context. Then, we can show that, by changing the context of assertion, the same knowledge-constitutive disposition can be described as a genuine

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[10] Of course, some epistemic contextualists such as Lewis (1996) and Greco (2003, 2010, 2012) employ contextualist insights to provide a new solution to the Gettier problem. However, notice that not only is this solution not adopted by philosophers who do not accept epistemic contextualism, but also that "this remains a much more controversial move [even] among proponents of EC [i.e., epistemic contextualism]" (Rysiew 2020) (see, for example, Cohen (1998)). Moreover, to my knowledge, neither Lewis nor Greco argues in favor of the claim that by changing the context of assertion the Gettier problem disappears in such a way that we can properly ascribe knowledge to the subjects. Rather, "according to them, EC [i.e., epistemic contextualism] explains why certain cases of justified true belief are not correctly said to be 'knowledge,' as Gettier showed" (*ibid.*). For example, Greco (2003, 131) argues that explanatory talk is context-sensitive, and, in Gettier cases, "there is something odd or unexpected about the way that S comes to believe the truth, and that the salience of the abnormality trumps the default salience of S's cognitive abilities." However, he does not introduce a new context for Gettier cases according to which the way that S comes to believe the truth can be thought of as a normal way, and therefore we can properly ascribe knowledge to the gettiered subject. Nevertheless, even if Greco's virtue contextualist makes room for the claim that by shifting the context of assertion knowledge can be correctly ascribed to the gettiered subject, what is important for the present project is that Sosa and Turri, whose virtue reliabilist accounts are the main focus of the present paper, do not endorse such an idea. For Turri's arguments against epistemic contextualism, see Turri (2017).

disposition. To see how, consider the faculty of human vision understood in terms of a conventional disposition. A reasonable approximation of the concept of human vision is the following canonical disposition: the disposition to see objects in front of us when we want or try to see[11] (for short, D3). Now consider the case of I-ray:

> The case of I-ray
>
> Imagine Mary desires to see the electrons of the table in front of her, and says so loudly. Imagine, also, that kind aliens detect the signal of her voice and so beam an I-ray at the table, in virtue of which Mary can see the electrons of the table in front of her.

In the everyday context of assertion, we have a pre-theoretical intuition that the faculty of human vision (as a conventional disposition) does not involve seeing electrons. However, in the case of I-ray, the reasonable approximation of human vision, i.e., the canonical disposition D3, manifests provisionally in virtue of an abnormal causality in the background conditions. Given the structural similarity to the case of Z-ray, it is fair to say that the case of I-ray is a mimic too. While the faculty of human vision is mimicked in this case, it can still constitute Mary's perceptual knowledge of the electrons. Therefore, it is not the case that an epistemic disposition's being mimicked entails its being gettiered. Moreover, similar to the case of Z-ray, mimicry can disappear in the case of I-ray by changing the context of assertion. Imagine the context of assertion is that we are comparing Mary with Gary, who is blind, but shares and expresses the same wish to see electrons, and that kind aliens beam their I-ray at the table in front of him too; however, because of his blindness, Gary cannot see the electrons. In this context, it would be plausible to say that, in contrast with Gary, Mary manifests the faculty of vision of the electrons. By changing the context, while the ascription of mimicking varies, the ascription of knowledge remains constant.

It is an easy step to alter the case of I-ray so that it is a case of an SV-mimic. For example, we can imagine that technology progresses, and a kind of spectacles are invented with which people can see electrons. Therefore, while there is a normal

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[11] Again, here the controversies about the proper option for the stimulus condition of competence we considered in ft.2 may return. One might worry that vision is a kind of competence whose stimulus condition does not involve trying or wanting. In reply, notice that in a weak sense of the term most cases of the manifestation of vision do proceed by wanting. If I don't want to see the scene in front of me, I close my eyes and I don't perceive it. Moreover, in some cases, manifestations of vision require wanting and trying in a stronger sense. For example, when I want to find, say, a needle in a haystack. However, as said above, the controversies about the stimulus condition of competence is not the focus of the present project, and we can easily change the example such that it does not require wanting or trying.

way of seeing electrons which is available for Mary, she sees them in virtue of an abnormal causality. Likewise, the SV-mimic vision of Mary can constitute her perceptual knowledge of electrons. Again, in the context of comparing with Gary, the mimic attribution disappears while the knowledge attribution remains constant.

As a result, the asymmetry in the nature of context-sensitivity between the problem of mimicking (or SV-mimicking) and the Gettier problem suggests that they are not of the same kind.

Different Causal Deviances and Double Luck

Comparing the case of Z-ray (as a mimic case) and the case of Archery (as a practical Gettier case), I argue in what follows that while causal deviance and double luck can be found in both the mimic case and the Gettier case, their causal processes are different in important respects, making it challenging to see them as both falling under the same category. In the case of Archery, Archie has an internal competence which causes shooting. The causal deviance (through the double gust of wind) comes *after* the manifestation of Archie's internal competence. One might think that the same goes for the case of the Z-ray. When the stone strikes the block of sturdy wood, it has an intrinsic property that produces a signal, and causes aliens to beam the Z-ray at it. It seems that the causal deviance comes after the intervention of the block. However, there is a crucial difference which needs careful consideration. Despite the case of Archery in which the final cause is not the internal structure of Archie, the final chain of the causal process in the case of the Z-ray is the internal structure of the block. In other words, the internal structure of the block *directly* causes (and manifests) breaking, allowing us to describe it as *the breaking of the block*. On the other hand, however, the second gust of wind (and not the internal competence of Archie) is the direct cause of her hitting the target, which does not allow us to credit the success to Archie's competence. Despite an initial appearance to the contrary, there are two different kinds of causal processes and double lucks in the mimic case and the Gettier case, which makes it more unlikely that the latter would be an instance of the former.

The observation made in the above paragraph about the case of Z-ray and mimicking can equally be applied to the case of Zapper and SV-mimicking. Likewise, the final chain of the causal process in the case of Zapper is the internal structure of the wine glass, and this structure *directly* causes (and manifests) breaking, allowing us to describe it as the *breaking of the wine glass*. Therefore, the causal deviance and double luck in both the mimic and the SV-mimic cases come before the intervention of the relevant internal structure of the object, and they differ from the Gettier cases in this respect.

Of course, because of the involvement of a kind of double luck, a piece of knowledge constituted by a mimicked disposition may be unsafe in some sense. However, the crucial point is that, to the extent that the double luck in a mimic case does not intervene between cognitive ability and cognitive success, some virtue epistemologists such as Sosa (2015) and Turri (2011) must be willing to describe the case as a kind of knowledge. To illustrate the point, consider Sosa's case of Simone, a competent pilot "who might easily be, not in a real cockpit, but in a simulation, with no tell-tale signs" (Sosa 2015, 146). Sosa clearly asserts that Simone's belief about her competent shots in real flying is backwards-unsafe (152). However, "Simone does have a kind of knowledge [i.e., animal knowledge], … since she does have an apt belief" (147). While being unsafe in some sense, her belief is apt because it directly manifests her cognitive competence, and no luck intervenes. Now consider again the case of I-ray as a case of epistemic mimic case. Since Mary's seeing the electrons is a matter of sheer chance, some epistemologists may seek to avoid an ascription of knowledge to her. However, to the extent that Mary's success in seeing the electrons is a direct manifestation of her internal ability, and no luck intervenes between them, Sosa and his supporters concede that she has an animal knowledge.

4. Concluding Remarks

Is the Gettier case an instance of mimic cases? Given the initial motivations for an analogy between these two cases provided in section 1, I think the question deserves independent consideration. Here, however, we have discussed it in the context of the challenge which virtue reliabilists face in spelling out the "because-of" relation between true belief and competence. While there are clear initial motivations for the alleged analogy, a closer look reveals that standard mimic and SV-mimic cases differ from practical and epistemic Gettier cases in important respects, making it difficult to see how both can be of the same kind.

As concluding remarks, let us review the upshot of the present discussion for virtue reliabilism. John Turri (2011), who thinks of the "because-of" relation in terms of the manifestation relation, suggests that we should understand the manifestation relation as primitive. However, as Greco (2012: 8) and others argue, Turri owes us an account of why the manifestation relation is absent in the Gettier case. In his dispositional account of knowledge in *Judgment and Agency*, Sosa combined the manifestation relation with the alleged analogy to put the issue in a broader context and provide a more promising diagnosis of the Gettier problem. However, if my argument in the present paper is on the right lines, Sosa's alleged analogy is not tenable; and therefore, like Turri, he still owes us an account of why the manifestation relation is absent in the Gettier case.

However, it is worth noting that the conclusion of my argument here must be restricted to standard instances of mimic cases and Sosa's version of them. It is still possible that someone may develop an importantly different idea of mimicking, such as extrinsic mimicking (Contessa 2013, 416), or contingent mimicking (Bird 2007, 27), or Achilles-like mimicking (Manley-Wasserman 2008), in virtue of which they might argue that the Gettier case is an instance of that different idea of mimicking. However, the burden of proof is on Sosa and his supporters to identify which kind of the non-standard cases of mimicking is analogous to the Gettier case and set out what arguments support the new alleged analogy.[12]

If Sosa and Turri put forward such arguments and can establish an analogy between the Gettier case and a special non-standard version of mimicking, they would have shown that knowledge is the manifestation of the disposition to justified true belief when one believes *in the absence of that special kind of mimickers*. However, even this is not sufficient to show that the *reductive* dispositional virtue epistemology suggested by Sosa and Turri is on the right track. Because, in the literature on dispositions, there are arguments in favor of the idea that mimickers (like maskers and finks) cannot be excluded without appealing to the genuine manifestation relation itself. For example, given that many (including Sosa (2015, 30) himself)[13] think of mimicking situations as abnormal, or non-ideal, or non-normal, Cross (2011, 3) writes: "The standard complaint against all such attempts at qualification is that… the abnormal or non-ideal or non-normal seems to be nothing more than the cases where if x were in C, x would not M [i.e., manifest]." Given such a complaint, there is a worry that, in excluding that special kind of mimicking, knowledge-constitutive competence cannot be defined without appealing to knowledge itself.[14] If so, this would be a reason in support of the *non-reductive* dispositional virtue epistemology suggested by Miracchi (2015) and Kelp (2017)

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[12] Another line of argument in favor of a similar idea is to draw an analogy between mimic dispositions and cases which are not Gettier cases but are counterexamples to various analyses of knowledge. For example, Beddor and Pavese (2020, 68-70) argue that there is an analogy between the standard mimic disposition and the case of Temp suggested by Pritchard (2012) as a counterexample to the sufficiency of the safety condition for knowledge. I do not discuss this line of argument here.

[13] Sosa (2015, 30) writes: "The example of fragility zapped suggests that a disposition can be manifest in a certain outcome only if it accounts *appropriately* for that outcome … [T]his must take place in the normal way, which by common consent excludes the action of our zapper, even when he does deviantly manage to link the trigger with the ostensible manifestation."

[14] Miracchi (2015, 37) raises a similar worry when she writes: "The critical question is whether, by appealing to the idea of a *characteristic manifestation* of a disposition, Sosa is in fact appealing to manifestations of much more fine-grained dispositions—dispositions that, in the epistemic case, are nothing short of dispositions to know."

which understands virtue epistemology as an instance of Williamson's "knowledge-first" approach.

Therefore, to provide a convincing dispositional account of Gettier cases by invoking mimic cases, a proponent of reductive dispositional virtue epistemology such as Sosa and Turri not only needs to find a special non-standard version of mimicking which would be analogous to the Gettier case, but must also show that we can exclude that special version of mimicking without appealing to knowledge itself.[15]

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EPISTEMIC DEPENDENCE, COGNITIVE IRRATIONALITY, AND EPISTEMIC CONFLICTS OF INTERESTS: WHY THERE IS A NEED FOR SOCIAL EPISTEMIC NORMS

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ABSTRACT: When an agent A depends on an agent B to promote one of A's epistemic goals, this will often involve B's forming and sharing of true beliefs. However, as is well documented in research on cognitive irrationality, agents are disposed to form and share false-but-useful beliefs in a lot of circumstances. The dependence relation is thus at risk of becoming negative: A might adopt false beliefs from B and thus be unable to promote their epistemic goal. I propose that we can employ the notion of an epistemic conflict of interest [ECOI] to capture the kinds of problems that epistemically interdependent agents face. Much like familiar cases of conflict of interests—e.g., related to government officials—in ECOI an agent is subject to a normatively primary interest—roughly to form and share true beliefs—that stands in conflict with normatively secondary interests. I focus on secondary interests documented in the aforementioned research on cognitive irrationality. The resulting framework addresses an explanatory gap in the literature on social epistemic norms by making explicit why there's a need for these norms to regulate our epistemic lives. Lastly, I show how the ECOI-framework furthermore allows us to make sense of and amend norm regulation failures.

KEYWORDS: cognitive irrationality, epistemic dependence, social norms, epistemic norms, conflict of interests, epistemic conflicts of interest

1. Introduction

Much recent work in social epistemology has focused on instances of agent-based dependence, where an agent A depends on an agent B to promote one of A's epistemic goals (Goldberg 2011; Hardwig 1985; Pritchard 2015; for a recent overview see Broncano-Berrocal & Vega-Encabo 2020). Rather often, this involves B's forming and sharing of true, rational, or justified beliefs about topics of relevance to A.

At the same time, work on cognitive irrationality documents how agents form their beliefs not just with an eye to truth, but to what's useful or beneficial to them

(Gigerenzer & Selten 2002; Kunda 1990; for a short overview, see Williams 2021c). For example, research on identity protective cognition [IPC] describes the tendency of individuals to sample and process information with the aim of protecting or enabling their status as a member of a desirable social group.

Considered in combination, a systematic problem arises: A depends on B to form and share true beliefs (say about the climate crisis), yet B is inclined to form and share false-but-useful beliefs (say to belong to a climate-skeptic social group). A might thus acquire false beliefs which would prohibit A from promoting their epistemic aim—the dependence relation is at risk of becoming negative.

The main aim of this paper then is to provide a framework to capture and systematize these and related cases. To that end, I propose that we can employ the notion of an epistemic conflict of interests [ECOI]. ECOI are conflicts of interest over how to form and share beliefs. As in standard cases of conflicts of interests, in ECOI a normatively primary interest (e.g., to form and share true beliefs about topics of relevance) stands in conflict with normatively secondary interests (e.g., to belong to a social group).

The ECOI-framework not only provides a way to capture, categorize, and relate different kinds of risks epistemically interdependent agents are vulnerable to (see e.g. Broncano-Berrocal &Vega-Encabo 2020, sec. 6.4; Grasswick 2004), it also is of relevance to the literature on social epistemic norms. Several social epistemologists engaged in a variety of debates rely on or argue for the claim that (at least some) epistemic norms are social norms (Abbate 2021; Faulkner 2011; Goldberg 2020b; Graham 2012; 2015; Greco 2020; Henderson & Graham 2019; Simion 2021). However, it is standardly acknowledged that social norms emerge to regulate cooperation, where there's an incentive for individuals to defect, cheat, or free-ride (see e.g. Bicchieri 2005; Fehr, Fischbacher, & Gächter 2002; Henrich & Muthukrishna 2021)—that is once it is in an individual's, but not their groups' interest to behave in non-conforming ways. When it comes to social *epistemic* norms specifically, we find that a general conceptual framework to capture and classify the different ways in which individuals might obstruct epistemic cooperation is lacking. It is thus unclear why there's a need for social epistemic norms.[1] I will argue that this lack of understanding also has implications for our chances to employ social epistemic norms effectively, since incentivizing individuals away from a particular epistemic behavior requires us to understand that behavior and the interests it promotes in the first place.

Summarizing, the aims of this paper are, first, to provide a framework to capture the problems epistemically interdependent agents are exposed to and,

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[1] But see Henderson (2020) for an important distinction that I'll revisit later on.

second, to consider how social epistemic norms regulate our epistemic behavior in light of them. Thus understood, this paper differs from existing research in a few ways:

Although there is a lively literature in applied ethics on general conflicts of interest (e.g., Almassi 2017; Brody 2011; Rodwin 2018; Wiersma et al. 2020) outside of select professional contexts their epistemic dimension has only been given little attention.

The notion of epistemic conflicts of interests has been implicitly and explicitly acknowledged in empirical research on cognitive irrationality, much of which I will discuss below. See for example Kahan with regards to IPC (2012, 732): "[…] public divisions over climate change stem […] from a distinctive conflict of interest: between the personal interest individuals have in forming beliefs in line with those held by others […] and the collective one they all share in making use of the best available science to promote common welfare." However, there's been no comprehensive treatment of these cases in social epistemology up to date.

Lastly, the literature on the ethics of beliefs is inspired by and discusses cases similar to the ones mentioned above, but there are also a few important differences: This is a piece of descriptive, rather than normative epistemology. What I mean by this is that—although the account is compatible with lots of positions in these debates—I'm not arguing for what agents *ought* to do in cases where epistemic and practical reasons clash (see e.g. Rinard 2019; Schmidt 2021), or how we might go about comparing these reasons (see e.g. Meylan 2021), or what gives epistemic reasons their normative force (e.g. Steglich-Petersen 2018). Rather, I provide a framework that allows us to describe and understand i) why and how these cases are relevant to extant social groups and ii) the actual and at times imperfect regulatory solutions they seek to employ in light of them.

The resulting account of ECOI then not only furthers our understanding of these matters but in doing so also enhances the prospects for epistemic norms to regulate our epistemic lives more efficiently.

2. Epistemic Interdependence and Cognitive Irrationality: A Systematic Problem

This section serves to introduce the fundamental sort of problem that the ECOI-framework is supposed to capture. Here I give a brief but hopefully helpful overview of research on epistemic (inter-)dependence and cognitive irrationality, before drawing attention to the problem that arises once they are considered in combination.

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2.1 Epistemic Interdependence

Humans are *ultra*social beings: We intensely learn from and cooperate with others to attain various goods we'd be unable to attain on our own. It is well documented that this creates large interdependence within social groups: We depend on others for the success of many of our actions and the welfare of our social groups. In turn, this interdependence has had profound and lasting impacts on human cognition and the organization of our social groups (see e.g. Henrich & Muthukrishna 2021; Sterelny 2012; 2021; Tomasello et al. 2012).

In present-day (social) epistemology it is widely accepted that this interdependence is not only practical — it also has an epistemic dimension. We depend on others, not just for the success of our individual or collective actions, but also to attain individual and collective epistemic goals (see amongst others Broncano-Berrocal & Vega-Encabo 2020; Goldberg 2011; Henderson 2020; Henderson & Graham 2017b; 2017a; Pritchard 2015).

To be a bit more specific, I am interested in what is sometimes called agent-based dependence, where an agent A depends on an agent B (or B's epistemic standings[2] and practices) to attain some epistemic goal.[3,4] Such agent-based dependence can take various forms and minimally occurs in: i) testimony (Coady 1992; Goldberg 2011), ii) collaborative and coordinated epistemic activities and projects (Hallsson & Kappel 2020)—e.g. in science (Kitcher 1990; De Ridder 2014), iii) our more diffusely depending on others to monitor, police, or apply the necessary epistemic vigilance (Sperber et al. 2010) to the beliefs and belief-forming practices of others (Goldberg 2011), and finally in iv) us being depended on epistemic instruments and epistemically engineered environments (S. Goldberg 2020a).[5]

The above considerations make clear that human social groups are practically and epistemically interdependent. Positive instances of epistemic (inter-)dependence can of course be enormously beneficial for social groups, allowing for epistemic division of labor, specialization, and the accumulation of culture and knowledge (Goldberg 2011; Sterelny 2012; 2021). But negative epistemic dependence makes social groups vulnerable: They're at risk of being obstructed in

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[2] i.e., whether their beliefs are justified, true, knowledgeable, etc.

[3] I plan to stay neutral on the question of whether collectives or groups can count as genuine epistemic agents, though I confess to having sympathies for Lackey's view (Lackey 2020; 2015).

[4] For other kinds of epistemic dependence and a more general overview of the field see e.g. Broncano-Berrocal & Vega-Encabo (2020) and the articles in the related special issue.

[5] It remains controversial whether depending on epistemic instruments and epistemically engineered environments can be reduced to agent-based dependence (Goldberg 2020a; Broncano-Berrocal & Vega-Encabo 2020).

their epistemic functioning and, in turn, in their overall welfare by a variety of factors. It is to *one* of these factors that I now turn.

2.2 Cognitive Irrationality

Human social groups might be epistemically interdependent, yet at the same time, it is well documented in empirical and theoretical research on cognitive irrationality that humans form their beliefs not (just) with an eye to truth but to what is useful or beneficial to them (Kahneman 2011; Kunda 1990; Gigerenzer & Selten 2002). Here I will focus on two of the most prominently discussed explanations of cognitive irrationality[6] referring to processing-costs and motivated cognition respectively (Williams 2021a; 2021c).

The literature on processing-costs seeks to explain cognitive irrationality by means of constraints of time, resources, and computational power on human cognition (Gigerenzer & Selten 2002; Kahneman 2003; Lieder & Griffiths 2020). It is because we are creatures faced with these constraints that we need to find cost-effective ways of forming beliefs. Thus, we often rely on what is called 'fast-and-frugal' heuristics, as investigated by e.g., Gigerenzer & Selten (2002). These heuristics are simple, task-specific decision strategies for solving judgment and decision tasks in the most effective way possible, given the constraints mentioned above.

Although these heuristics lead to systematic mistakes, it is widely held that it is more beneficial for the individual to rely on them, rather than a less mistake-prone but more resource-intensive way of forming beliefs—which in principle would be available to the agents and are used if the belief in question is of a certain personal or social importance (Mercier & Sperber 2017; Lieder & Griffiths 2020). So even though individuals behave *epistemically* irrationally by not employing a reliable or otherwise truth-conducive way of forming beliefs, they still behave ecologically rationally (Gigerenzer 2008): Given the environments they inhabit and the constraints they face, they apply a decision-strategy that most effectively achieves their interests.

Research on the remaining source of cognitive irrationality—motivated cognition and reasoning—maintains that our motivations—e.g., our desires, aims, wants, goals—can causally influence the ways in which we form beliefs (Bénabou & Tirole 2016; Kahan 2017; Kunda 1990; Sharot & Garrett 2016; Williams 2021a).

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[6] By '*cognitive* irrationality' I simply mean information-processing that is "systematically biased away from the truth" (Williams 2021b, 7) (for whichever reason this might be). I don't make any normative claims as to whether agents ought (not) to process information in this way—this, to my mind, would be a question of *epistemic* rationality or normativity. I say more on this in section 4.

Explanations invoking motivational influences can be found in both psychology (Kunda 1990) and the social sciences (Bénabou & Tirole 2016). The underlying picture is the same: Beliefs have both epistemic and non-epistemic effects. The former are the effects of a belief that are related to the truth of its content, the latter are the effects that are not related to the truth of its content (Williams 2021a). Individuals can be motivated to attain the non-epistemic effects of (not)[7] having a belief. These range from, amongst others, preserving or bettering their self-image or self-esteem (McKay & Dennett 2009; Zimmermann 2020), to overcoming self-control problems (Bénabou & Tirole 2016; 2002), to achieving emotional regulation (McKay & Dennett 2009; Sweeny et al. 2010; Sharot & Garrett 2016) and/or to promoting a particular social outcome (Williams 2021a; Zimmermann 2020)—think of the cases of IPC, where individuals aimed to protect or enable their status as a member of some social group by forming beliefs about policy-relevant topics. IPC is thus thought to be responsible for disagreement regarding policy-relevant facts—e.g., about the climate crisis or vaccine safety (Kahan 2012; 2017; Kahan et al. 2012; Van Bavel & Pereira 2018).[8] A variety of unconscious or sub-personal processes are employed to arrive at the desired belief. For example, individuals will selectively recall evidence relevant to their desired belief (Kunda 1990; Bénabou & Tirole 2016). Motivated reasoning is found in all sorts of individuals, ranging from lay-people to well-educated individuals (Kahan 2017) and CEOs (Malmendier & Tate 2005; 2008).

Summarizing, what the research on cognitive irrationality tells us is that we tend to form false-but-useful beliefs, useful either because the *process* of forming the respective belief was cost-effective or because (not) *having* the respective belief accords with our motivations.

2.3 A Systematic Problem

Consider the following case [FARAH&JASMINE]:

> Farah is a student in Jasmine's class. As part of their school's curriculum, Jasmine is

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[7] Individuals cannot only be motivated to form a belief but can also be motivated to remain ignorant (see Williams 2021b on motivated ignorance).

[8] It is controversial whether individuals' beliefs in these cases are the result of motivated reasoning rather than e.g. limited scientific literacy or prior beliefs about the topic at hand (Pennycook & Rand 2019; Tappin, Pennycook, & Rand 2021). Note that IPC only functions as an example in this instance. The more general point, that individuals can be motivated to form beliefs to attain specific social outcomes, can be made without relying on IPC (Williams 2021a). There is also some controversy about whether individuals do in fact have different *beliefs* (as opposed to other, non-doxastic attitudes) about policy-relevant facts. I say more on this in section 7.

> supposed to teach Farah and the other students about the climate crisis. However, next to being a teacher, Jasmine is also a proud member of a local political party that recently has become rather climate sceptic. Though Jasmine hasn't felt strongly about the topic before, she has found herself in agreement with her party's views. In addition, she fears that her reputation in the party would be tarnished, were she to teach what's on the curriculum. So, instead of teaching about the environmental effects of factory farming, Jasmine focuses on the kinds of climate sceptic arguments appreciated by her party. Farah, influenced by her teacher in her beliefs about the climate crisis, both accepts Jasmine's teachings and shares them with friends and family who now consider joining Jasmine's party.

FARAH&JASMINE is illustrative of the kinds of problems that epistemic agents face. On the one hand, they are epistemically interdependent—i.e., agents depend on others to engage in various epistemic practices, to form and share true, justified, and rational beliefs for the dependence relation to be positive, much like Farah depends on Jasmine for beliefs about the climate crisis. On the other hand, agents seem to be disposed to act and believe in ways that stand in conflict with others' needs, e.g., by forming and sharing false-but-useful beliefs—much like Jasmine shared her socially motivated and false beliefs about the climate crisis. As a result, Farah was unable to attain true, accurate, or justified beliefs about the matter. Because of the importance of the topic, this can have negative implications for the epistemic functioning and overall welfare, both of the epistemically dependent individual and—because of the epistemically interdependent nature of social groups, e.g., because Farah shared her newly acquired beliefs with friends and family—for the entire social group.

As mentioned, I propose that we can capture and engage with this problem by employing the notion of an epistemic conflict of interest. Most of us will be familiar with conflicts of interests [COI] in relation to politicians, government officials, company executives, researchers, or physicians. In COI, agents promote normatively secondary interests (e.g., monetary gain) instead of normatively primary interests (e.g., for physicians: treating the unwell in the best way possible). If COI are not regulated, they pose a risk for agents and their social group (see e.g. Almassi 2017; Brody 2011; Rodwin 2018; Wiersma et al. 2020).

Epistemic COI are COI concerning how to form and share beliefs. Here too agents—such as Jasmine—promote normatively secondary interests (e.g., forming false-but-useful beliefs to belong to a social group) instead of normatively primary interests (e.g., forming and sharing true beliefs). Since ECOI are a kind of conflict of interest [COI], it will be helpful to first, rather briefly, establish what COI are to then subsequently discuss ECOI.

3. What are Conflicts of Interests?

Let's start with a familiar example of a COI [LARRY]:

> A physician called Larry receives money from a pharmaceutical company to dispense their medication. However, the medication in question is not the best available treatment for the patient.

In this case, Larry has a personal (monetary) interest to dispense the medication and another (conflicting) interest to give the patient the best available treatment. Larry cannot promote both interests at the same time. It is also clear that the latter interest is normatively speaking more significant than the former—Larry should prescribe the best medication—and that this latter interest is somehow related to Larry's being a physician.

LARRY matches a broadly accepted characterization of COI, which, roughly put, goes something like this: In COI an agent holds multiple interests, such that promoting one interest would go against promoting another interest, where the latter is normatively speaking more important than the former and due to a social role (Wiersma, Kerridge, & Lipworth 2018; Lipworth, Ghinea, & Kerridge 2019).

To make sense of this we can notice that in COI there are two conflicting interests, but one is of more normative weight. I will adapt Thompson's (1993) now widely used terminology to differentiate between the two competing interests: The normatively more significant interests are called *primary* interests. The normatively less significant interests are called *secondary* interests.[9]

The characterization also mentions that the primary interest should be due to a social role. To that end, we can differentiate between social and personal interests: *Personal* interests are the values, aims, goals, wants, or ends that agents pursue by means of actions and attitudes (Wiersma, Kerridge, & Lipworth 2018; Lipworth, Ghinea, & Kerridge 2019). In LARRY, the relevant personal interest is Larry's aim to attain more wealth. *Social* interests are the duties, obligations, or requirements that stem from social roles individuals are part of (Wiersma, Kerridge, & Lipworth 2018; Lipworth, Ghinea, & Kerridge 2019). Again, in LARRY, the relevant social interest is the requirement to allow for and contribute to the best possible treatment of the patient and that this interest is due to Larry's social role of being a physician.

For present purposes, we can understand social roles to be characteristic or socially expected patterns of behaviors and attitudes that are associated with individuals that inhabit specific positions within a social group. There is a point or

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[9] There might also be cases where both interests are of equal normative weight, but where we still cannot promote one without going against the other. I do not discuss such cases here—in part because it is unclear whether there's a need to regulate these kinds of cases.

purpose that corresponds to the respective patterns of behavior and attitudes. There is something these patterns of behaviors and attitudes are to achieve or attain—something agents *should* do given their social roles (Banton 1965; Biddle 1986; Haslanger 2012; Komarovsky 1992).[10] For example, the purpose of the social role of a physician is to treat the unwell, and doing so is the characteristic pattern of behavior that we come to expect from them. So, social roles, in part due to their point or purpose and the social expectations that are constitutive of them, require certain actions or attitudes from an individual. These kinds of requirements on an individual that inhabits a social role are meant by 'social interest' here.[11]

COI, then, are conflicts between a primary social interest and secondary personal or social interests. This requirement is in place to capture the socio-normative relevance of COI: The promotion of a secondary interest over a primary social interest has potentially problematic consequences for the wellbeing or functioning of a social group and thus stands in need of being regulated by it. This is intuitive for well-known cases of COI involving physicians, politicians, researchers, or government officials. These are cases in which a secondary interest is being promoted (e.g., for LARRY: prescribing certain medication for monetary reward) instead of a primary interest related to the respective social role (e.g., for LARRY: to treat the unwell in the best way possible), where there are potentially problematic consequences for the social group (e.g., the health of group-members).

It is a consequence of this view that cases where the primary interest is personal rather than social do not qualify as a COI. This might strike some as counter-intuitive. But notice that paradigmatic cases of COI—COI involving physicians, politicians, researchers, or government officials—all revolve around social interests. We can thus see that the notion of COI is intimately tied to the conflict being relevant to a social group or its members. One might treat 'COI' as a technical term, meant to capture instances where primary social interests are at risk of not being promoted.

4. Epistemic Conflicts of Interests

This section serves to introduce epistemic COI. Here I first introduce the primary interest involved in ECOI, before focusing on secondary interests.

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[10] Though I'm mainly relying on Haslanger's account, other accounts of social roles (e.g. Searle 1995; 2010) would work equally well for my purposes here.

[11] Strictly speaking, on such an understanding of social interests, they aren't something that a subject has, but rather something that applies to them. For ease of use, I will continue the 'looser' formulation.

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4.1 The Primary Epistemic Interest

The general case for ECOI starts with establishing what the competing interests are going to be. Importantly, given that ECOI are a kind of COI, at least the primary interest needs to be social in nature. I contend that the primary interest in ECOI is the requirement to reliably form and share true and avoid forming or sharing false beliefs (about a certain class of propositions that are of relevance to others). For ease of reference, I will call this the primary epistemic interest [PEI].

Here are a few initial remarks on this formulation:

- The PEI as it is formulated here is clearly an abstraction. What it would precisely mean for agents to reliably form and share true beliefs and avoid doing so for false beliefs (about a certain class of propositions that are of relevance to others) will depend on a variety of factors. To illustrate, James (James 1979) already discusses how believing truly and not believing falsely might require different epistemic behaviors from agents. Which behavior to display clearly depends, in part, on contextual factors and will thus not be discussed here.

- 'Form' in this formulation is shorthand for many different kinds of doxastic behavior and should minimally be understood to include the revision, regulation, suspension, and maintenance of beliefs (see e.g., Meylan 2013).

- I have opted for a folk-psychological notion of belief over more credence-based or Bayesian ones. However, this shouldn't matter to the key aspects of ECOI.

- Furthermore, I here focus on ECOI that are about acquiring *true* whilst avoiding *false* beliefs. Though ECOI related to other epistemic notions such as coherence, justification, knowledge, understanding, or rationality are also of interest, truth offers a relatively simple case to start building up our understanding of ECOI.[12]

Here's why I think that the PEI is a *social* interest: I take it that the PEI is a requirement that stems from the social role of being a Knower. Knowers are expected to reliably make public assertions (about a certain class of propositions that are of relevance to others) that others may take to be true (Abbate 2021; Congdon 2018)—and are thus required to form and share true beliefs.

Most often, agents inhabit the social role of being a knower indirectly, in virtue of inhabiting another social role (Abbate 2021). Social roles can differ with regards to how central the role of Knower is to them. For some social roles, forming and sharing true beliefs (about a certain class of propositions that are of relevance to others) simply is their main purpose. For example, an academic or a teacher is required to reliably form and share true beliefs about a certain class of propositions

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[12] In the following, I will simply use 'form and share true beliefs' and thus omit the second Jamesian goal for reasons of succinctness.

(whatever it is they are researching/teaching) that is (more or less) relevant to their social group because doing so is the purpose of their social role. Being a Knower is the main thing they are required to do as part of their social roles. For others, forming and sharing true beliefs (about a certain class of propositions that are of relevance to others) is what agents are required to do *so as to be able to fulfill* their social role. There's a sense in which these agents are more indirectly required to be Knowers by their respective social roles. For example, a physician is primarily required to treat the unwell. But to do so, physicians must form and share true beliefs about all kinds of things. So, agents can be required to be knowers in more or less direct ways.

Recall as well that social roles are socially expected patterns of behaviors and attitudes. Recent work in (social) epistemology has acknowledged that we do indeed have expectations regarding others' epistemic behavior and react negatively if these expectations aren't fulfilled. We (often legitimately) *expect* all kinds of people inhabiting social roles (e.g. physicians, but also neighbors, teachers, parents, teammates, citizens, cashiers, and friends) to form and share true beliefs about lots of things (Goldberg 2018). If they do not do so, we blame them and hold them responsible (Boult 2021; Meylan 2017; Tollefsen 2017). These, and many other social roles, are "socially approved sources of information," that allow for an epistemic division of labor in epistemically interdependent communities (Goldberg 2011; Greco 2020). It is in this sense that the PEI is a social interest that is due to the social role of a Knower.

We are now in a better position to appreciate why the PEI is formulated in the way it is—why the PEI requires agents to *reliably form and share* true beliefs *(about a certain class of propositions that are of relevance to others)*.

I. The PEI requires agents to *reliably* form and share true beliefs because most cooperation and dependence in social groups do not take place in the form of one-shot interactions. Much rather, cooperation is recurrent and often long-lasting (Henrich & Muthukrishna 2021) and so are the kinds of dependencies listed above. This is why randomly (or otherwise unreliably) formed true beliefs will not suffice.

II. The PEI requires agents to reliably form and share true beliefs that are of *relevance to others* in the sense that 'relevant' beliefs here simply is intended to mean the sorts of beliefs in relation to which there is epistemic (inter)dependence. So agents are required to form true beliefs if others depend on them to do so.[13]

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[13] It is common—if not uncontroversial (Steglich-Petersen 2018)—to think that one is required to form true beliefs even in cases of trivial truths, i.e. truths that are of no interest to individuals or

> It is worth noting that the scope of *relevant* beliefs might be larger than initially assumed: First, because of the large degree of specialization, epistemic (inter-) dependence is rampant in present-day social groups (Millgram 2015). Second, the scope of relevant beliefs does not only contain the beliefs agents actually depend on at a given point in time but also the beliefs and associated belief-forming capacities that agents might come to depend on in the future. In addition, it is simply difficult to *estimate* which beliefs will be of relevance to others, so airing on the side of caution is a worthwhile policy (Grimm 2009).

III. The PEI requires agents to reliably *form and share* true beliefs about a certain class of propositions that are of relevance to others simply because forming false beliefs will lead the agent to share false beliefs—which, in turn, will often lead to others acquiring false beliefs.

IV. The PEI requires agents to reliably form and share true beliefs *about a certain class of propositions* that are of relevance to others because we depend on different agents for different beliefs—people are Knowers about different topics. This is how a division of epistemic labor is achieved. In addition, the class of propositions individuals are required to form and share true beliefs about likely not only includes specialized beliefs but also beliefs that are either common knowledge or could easily have been known by an individual.

Lastly, let me say a few words on the PEI being a *primary* interest:

1. Let me first note that I aim to remain non-committal with regards to the question of what makes an interest primary, i.e., what makes an interest have more normative weight than another. Relatedly, the framework is compatible with but not committed to the PEI's normative importance or overall legitimacy being due to or grounded in the social role of being a Knower (Abbate 2021) or the expectations we have of others (Goldberg 2018). All I've suggested is that it's a descriptive fact that in many social groups there exists the social role of a Knower that requires certain things of agents. I'm thereby not committed to the normative claim that the legitimacy or normative importance of that requirement is also due to that particular social role (or the related expectations). I take it to be a strength of the ECOI-framework that it is compatible with a variety of meta-epistemological theories.

2. Because of the above, I do not claim that the PEI is a primary interest in any particular case. What I do claim is that the PEI *is* a primary interest in a substantial amount of cases. I take it that this is both intuitive and supported by the fact that social groups—by means of social norms and practices—are organized so as to ensure that the PEI is being complied with. It is because sharing

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social groups (Kelly 2003). I do not take a position on this matter here. But note that the ECOI-framework is compatible with there being cases where individuals are required to form true beliefs about trivial truths (or other propositions of no interest to social groups). Because of the lacking social interest, these cases will simply not count as an ECOI.

and forming true beliefs often (but certainly not always) is of more importance than the promotion of an agent's other interests that these norms and practices persist (see sct. 6 for more on this).

4.2 An Initial Taxonomy of Epistemic Conflicts of Interests

Section 4.1 established the primary epistemic interest at play in ECOI. To complete the picture, we must now turn to the secondary interests, the promotion of which would hinder the fulfilment of the PEI. Since the PEI remains the same, we can use the different kinds of secondary interests to establish a taxonomy of different kinds of ECOI.[14] What kinds of interests could be relevant here?

As noted in Section 3, secondary interests can themselves either be personal or social interests. The PEI is the requirement to reliably *form* and *share* true beliefs (about a certain class of propositions that are of relevance to others). It follows that there are at least four kinds of secondary interests that can compete with the PEI and that there are thus at least four different kinds of ECOI: i) personal and ii) social interests that concern the formation and iii) personal and iv) social interests that concern the sharing of true beliefs (about a certain class of propositions that are of relevance to others) (see figure 1). To illustrate, recall FARAH&JASMINE. On the proposed framework, Jasmine is entangled in an ECOI: On the one hand, the PEI applies to her—she's required to form and share true beliefs as part of being a teacher—but on the other hand, she has secondary interests—being part of a social group—that conflict with it. Farah, in turn, is at risk of acquiring false beliefs.

As was the case for the PEI, in treating these interests as secondary I do not attempt to make a judgement about any particular case. It might sometimes be perfectly justified to put one's personal or other social interests before the PEI. At times, doing so might actually *contribute* to the epistemic functioning of an agent (see e.g. Bortolotti 2020). What I am claiming is that there is a significant number of cases—in part the kinds of cases similar to FARAH&JASMINE—where this isn't so, where the kinds of interests discussed below are secondary. For these cases I provide a framework.

One might also worry that the promotion of doxastic or epistemic interests—be they primary or secondary—has an overly voluntaristic ring to it. Two points in response: First, talk of interests doesn't commit me to saying that we have direct control in pursuing these interests. Indirect control over belief-forming processes suffices to promote certain interests over others (e.g., Meylan 2017). Second, social epistemic norms change the incentive-structure so that it becomes more

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[14] ECOI$_1$ is different from ECOI$_2$ in that ECOI$_1$ contains secondary interests of the kind$_1$ and ECOI$_2$ contains secondary interests of the kind$_2$.

advantageous for agents to form and share beliefs in specific ways. This also doesn't require agents to be able to believe at will, but rather for their belief-forming mechanisms to be sensitive to social rewards and punishments (Williams 2021a).
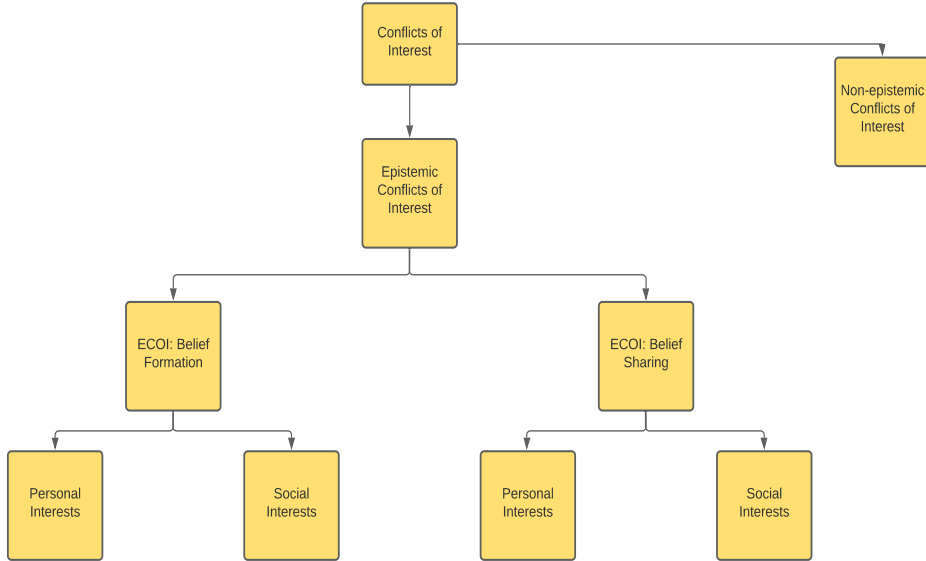

Figure 1: A taxonomy of different kinds of ECOI

I will focus on personal and social interests related to the *formation* of beliefs that might compete with the PEI. This is in part due to a lack of space. But more positively, drawing from this rich body of empirical work on cognitive irrationality allows for a relatively fine-grained and empirically adequate understanding of an important subset of ECOI.

But before turning to ECOI related to the *formation* of beliefs, let me acknowledge that there might be significant differences in what the PEI precisely amounts to in the two cases. For example, on Greco's (2016; 2020) view, forming and sharing beliefs have different social functions: Roughly put, the former serves to bring information into an epistemic community, whilst the latter functions to transmit it. To perform these functions effectively, agents might be required to behave in different ways.

Here are two examples for iii) personal and iv) social interests related to the *sharing* of beliefs that compete with the PEI to bring across the general idea, though both of these surely deserve more time and consideration. Personal interests related

to the sharing of beliefs that can conflict with the PEI are rather easy to come by: All of us lie from time to time. In some, if not most, cases we do so to promote some interest of ours. In contrast, whistleblower cases are instructive when it comes to social interests related to the sharing of beliefs: In such cases, there exist requirements that stem from the particular social role—often a particular profession—that forbid the agent from sharing information. Given the fact that individuals inhabit epistemically interdependent social groups, others will plausibly depend on them sharing true beliefs to a certain degree. Thus, ECOI arise.

This concludes the general overview of ECOI. In ECOI, the PEI—the requirement to reliably form and share true beliefs about a certain class of propositions—stands in conflict with both personal and social interests related to the formation and sharing of beliefs.[15]

5. Epistemic Conflicts of Interests Concerned with the Formation of Beliefs

This section serves to give a more fine-grained understanding of ECOI concerned with the *formation* of beliefs. I will rely on the two explanations of cognitive irrationality that I introduced in section 2.2. The different kinds of interests we find documented in this sort of research allow us to establish two 'sub-kinds' of ECOI and thus lets us expand on our initial taxonomy.

Before going into more detail, note again that I'm not committing myself to say that each case where supposedly cognitively irrational mechanisms are employed qualifies as an ECOI. This is, in part, because employing (some of these) mechanisms might at times be conducive to attaining good epistemic outcomes (see e.g., Hallsson & Kappel 2020; Mercier & Sperber 2017).

5.1 Process-ECOI

In Process-ECOI the interests of an individual might align with the PEI insofar as the individual, in principle, is interested in forming true beliefs about p. However, there is a conflict when it comes to how this interest is supposed to be pursued, i.e., how the belief is going to be formed.

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[15] ECOI so conceived bear resemblance to what is sometimes discussed as intellectual COI [ICOI] (Goldberg 2020; Wiersma, Kerridge, & Lipworth 2018) in applied ethics and adjacent areas. ICOI arise out of intellectual commitments to a particular research program or clinical practice that might bias the judgement of a physician or researcher (or similar). Though surely related, ECOI are a much broader notion in that they first do not only arise in relation to intellectual commitments but in relation to a variety of personal and social interests that compete with the PEI (see Sections 4.2-5.2). Second, ECOI are much broader in that they do not only arise in relation to a select few social roles but to a *multitude* of social roles (see Section 4.1).

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Although such conflicts can manifest themselves in different ways, I take it that one of the most central instances is captured in processing-costs explanations of cognitive irrationality. Recall, these refer to constraints on time, resources, and computational power on human cognition (Gigerenzer & Selten 2002; Kahneman 2003; Lieder & Griffiths 2020). The general idea of these explanations is that because we are creatures faced with these constraints, we need to find *cost-effective* ways of forming beliefs.

There is a conflict regarding the costs associated with the formation of the respective belief. It arises because what is most cost-effective for the individual is not necessarily conducive to promoting the PEI in the manner required. Recall that individuals tend to, e.g., employ fast-and-frugal heuristics to cost-effectively form beliefs in such circumstances. Though useful (and certainly cost-effective), these lead to systematic mistakes. To *reliably* form true beliefs in different contexts—as required by the PEI—individuals would often need to form beliefs in ways that are not most cost-effective for them, e.g., by investing more time or computational power than they would like to.

So, Process-ECOI are about how individuals ought to form beliefs. Most centrally, they contain secondary interests related to the costs of forming beliefs.[16]

Before turning to Content-ECOI it should be noted that *social* interests might lead an agent to employ cost-effective but unreliable ways of belief-formation too. Consider a large clinic that is very demanding of its employees. Physicians have to see a large number of patients per day. This leads to them relying on fast-and-frugal heuristics to comply with the demands of their employer. At the same time, the quality of care suffers because of the lack of (epistemic) resources physicians are able to invest. Here physicians are entangled in a Process-ECOI, where a social interest conflicts with the PEI: As employees, they are (indirectly) required to form beliefs in unreliable ways by investing as little resources as possible. As physicians, they are required to do the opposite.

5.2 Content-ECOI

Whilst Process-ECOI are concerned with the costs of *forming* beliefs, Content-ECOI are concerned with (not) *having* specific beliefs. Motivated cognition explanations of cognitive irrationality refer to the fact that we are often motivated to (not) form specific beliefs and—because of this—employ unreliable ways of belief-formation.

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[16] So conceived, Process-ECOI bear similarities to what Henderson (2020, 290) calls 'competing pursuit attractors.' Both describe instances where individuals do not employ their best belief-forming capacities, in part because of the pursuit of other interests. Though note that Henderson doesn't differentiate between social and personal interests.

The motivations to do so are related to beliefs' non-epistemic effects which range from self-regulation to the influence of one's beliefs on others.

In Content-ECOIs individuals have interests to (not) form specific beliefs—i.e., beliefs with a specific content. Whilst individuals in Process-ECOI are at least in principle interested in forming true beliefs, in Content-ECOI individuals' interests to form specific beliefs are independent of the veracity of the beliefs. The interests are much rather related to the aforementioned non-epistemic effects of these beliefs.

The relevant interests can be both personal and social in nature. Content-ECOI with personal interests are rather straightforward: These are just the usual cases of individuals being motivated (e.g., to attain emotional regulation) to form specific beliefs. Content-ECOI with social interests are more complex. Cases of IPC are instructive here. In IPC an individual is motivated to (not) form a belief to protect or enable their status as a member of some desirable group. Though individuals in such cases have a personal interest, roughly to being part of their social group, frequently there will also be a corresponding social interest: A requirement for them to (not) have certain beliefs in order to be part of that social group. Having such beliefs thus becomes part of their social role—it is what is required and has come to be expected of them as part of their being a member of the group. Recall how in FARAH & JASMINE the latter does have a personal interest in being part of her respective political party. But it's also the case that to fulfil the social role of being a member of party X, Jasmine was required to have certain beliefs about the climate crisis. Promoting these kinds of interests might be conducive to being part of a social group, yet it will more often than not stand in competition with promoting the PEI: A belief formed for its non-epistemic effects will in most cases not be true.[17]

This concludes the discussion of Content-ECOI. I have argued that Content-ECOI arise due to personal and social interests to form specific beliefs irrespective of the veracity of the respective beliefs. More generally, this also concludes the discussion of the different kinds of ECOI related to the formation of beliefs. Content- and Process-ECOI are similar in that individuals employ unreliable or otherwise non-truth-conducive ways of belief-formation—this is how they infringe on the PEI. They are differentiated in that the secondary interests in Process-ECOI are related to the process of forming beliefs, whilst the secondary interests in Content-ECOI are concerned with (not) having specific beliefs.

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[17] So conceived, Content-ECOI are similar to what Henderson (2020, 290) calls 'content attractors.' Both describe cases where individuals have an interest (what Henderson calls a 'temptation') to form a belief because of its content and irrespective of its truth. Though note that Henderson doesn't differentiate between social and personal interests.
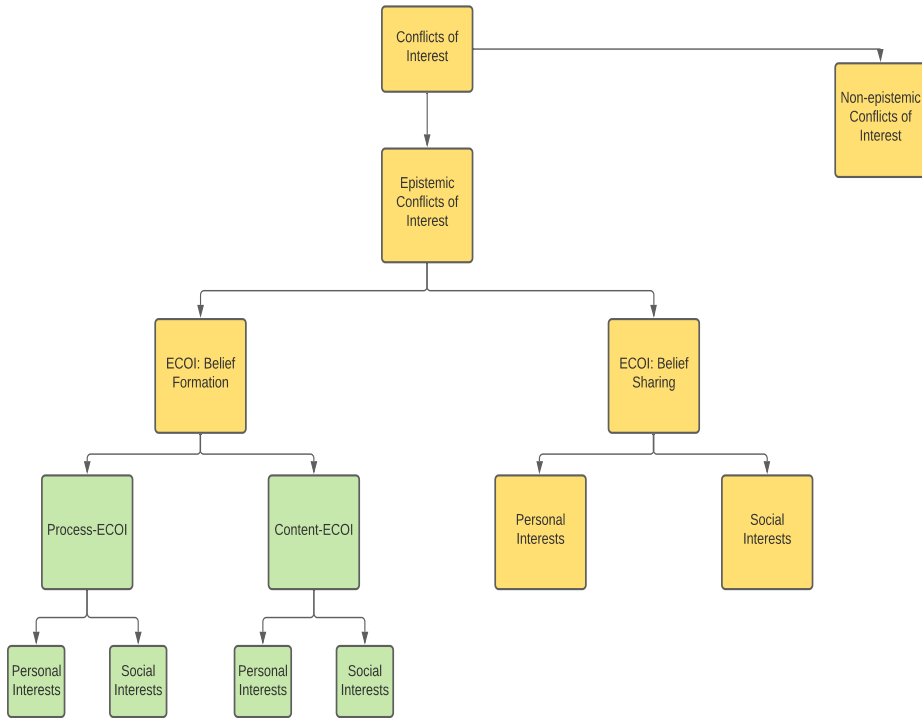
Figure 2: An expanded version of the taxonomy of ECOI—new additions in green

6. Epistemic Conflicts of Interests and Epistemic Social Norms

There are two related reasons that speak in favor of the ECOI-framework. First, it addresses an explanatory gap in the literature on social epistemic norms. Second, it is essential to properly understand instances of norm regulation failures.

With regards to the first point, a variety of social epistemologists engaged in different projects agree that there are social epistemic norms, which, roughly put, guide us in forming and sharing our beliefs (Abbate 2021; Dyke 2020; Faulkner 2011; Goldberg 2020b; Graham 2012; 2015; Greco 2020; Henderson & Graham 2019; Simion 2021). Such norms incentivize agents by means of sanctioning and reputation-mechanisms: We sanction individuals, in part by praising or blaming them for the beliefs they hold (Boult 2021). This also affects an individual's epistemic reputation (Origgi 2012). In turn, we selectively associate with individuals who have a *sufficient* epistemic reputation—who we deem to be epistemically reliable (Henderson & Graham 2019, 429f).

However, it is standardly acknowledged that social norms (at least in the strict sense of the term mostly used in the literature) only emerge in cooperative contexts, when there are incentives for individuals to defect, cheat, or free-ride (see e.g., Bicchieri 2005; Fehr, Fischbacher, & Gächter 2002; Henrich & Muthukrishna 2021). Put more game-theoretically, social norms are seen to solve mixed-motive or cooperation games (e.g., a Prisoner's dilemma)—that is games where there is a good to be attained by cooperating but where the incentive-structure favors defecting over cooperating. Social norms solve such games by incentivizing agents to behave in the ways required for the good to be attained (Bicchieri 2005, chap. 1). However, if there are no incentives to defect then there's no need for social norms to regulate the kinds of social choice situations that cooperation games are supposed to model.

This general point also holds for social epistemic norms: If there are no incentives to defect from epistemic cooperation, there's no need for social epistemic norms.[18] So far, only little has been said on how agents might defect from epistemic cooperation in the literature, most stipulate that such incentives likely do exist (but see Henderson 2020 for an exception). The ECOI framework addresses this explanatory gap by first, illuminating what agents are required to do or believe for epistemic cooperation to work out and by, second, offering a way to categorize different kinds of ways in which agents might be incentivized not to epistemically cooperate (see section 4.2 on secondary interests). It is because of the existence of ECOI that there's a need for social epistemic norms to regulate our epistemic behavior.

With regards to the second point, the ECOI-framework is essential to understand norm regulation failures and thus to securing successful epistemic cooperation within social groups. Of course, there might be many different things that go wrong in how social groups aim to regulate belief-formation. They might, for example, take the wrong interest to be primary. But there also exist distinct kinds of norm regulation failures, that is instances where norms fail to regulate their target behavior. I'll consider two here:

> 1) A social norm might fail to regulate its target behavior simply because the kind of incentivization it provides is insufficient. That is when agents—despite the existence of a social epistemic norm—still prefer to defect from epistemic cooperation. For example, in FARAH&JASMINE, Jasmine might come to believe as she does because the incentivization that is provided by social epistemic norms

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[18] In such instances, we might find there to be something like epistemic customs or conventions, that is social norms (in a broad sense of the term) that solve coordination games. I agree with Henderson (2020) that epistemic norms likely function as customs or conventions in some contexts and as social norms in others.

isn't so costly as to mitigate the benefits from believing in line with her social group. To make sense of and rectify this sort of situation, we need to acknowledge that Jasmine is part of an ECOI and adjust incentivization accordingly.

2) A social norm might also fail to regulate its target behavior because they address the wrong kind of ECOI and thus change the incentive-structure in the wrong way. For example, a social epistemic norm meant to regulate ECOI that concern how beliefs are shared will not be successful in regulating ECOI that are about the formation of beliefs—clearly, agents might only share beliefs they take to be true, yet all too often form false beliefs. Relatedly, social epistemic norms that seek to regulate Process-ECOI might not be successful in regulating Content-ECOI. Consider again FARAH&JASMINE: Incentivizing Jasmine to make use of her best reasoning-processes might not be successful if she's independently motivated to acquire specific beliefs. There's evidence that shows that people with a high degree of scientific literacy tend to employ these capacities to arrive at the desired conclusions (see e.g. Kahan et al. 2012). So Jasmine too might simply reason her way to the desired belief. This second point also shows why it is important to have a fine-grained understanding of different kinds of ECOI: The reason for this is simply that they might need to be regulated in different ways.

7. Conclusion

I have argued that the notion of an ECOI—as part of which the PEI stands in conflict with a variety of personal and social interests—can be used to capture a range of risks that epistemically interdependent agents are exposed to. In particular, the ECOI-framework allows us to understand how cognitive irrationality gives rise to a systematic problem for such agents and how social groups seek to address this problem by means of social epistemic norms.

There is of course much to further be addressed when it comes to attaining a fine-grained understanding of ECOI—both additional empirical *and* philosophical work is required.

On the empirical side, we can draw on research on IPC to elucidate a few important points. People skeptical of IPC-research question whether individuals do in fact not have different *beliefs* regarding policy-relevant facts. Rather, they claim that what explains an individual's assertions is what is often called 'expressive responding' (Bullock, Gerber, & Huber 2015) or 'motivated responding' (Khanna & Sood 2018)—i.e., individuals expressing their (non-factual) attitudes (e.g. of support or dislike) with regards to a certain topic. If individuals are lacking beliefs in these instances, then there will not be an ECOI related to the *formation* of beliefs. (Although, since their assertions are likely to be *interpreted* as expressions of beliefs (Hannon & de Ridder 2021, 159) they might be part of an ECOI that is related to the *sharing* of beliefs.) It is thus easy to see how more empirical work is required to more

accurately classify different kinds of ECOI. Of course, empirical work not considered here is also of importance for extending the ECOI-taxonomy.

On the philosophical side, two points stand out: First, ECOI related to sharing of beliefs have only been given little attention in this paper. This ought to be rectified. Second, ECOI related to cases of epistemic injustice (Fricker 2007), exploitation (Berenstain 2016), corruption (Kidd 2019), oppression (Sertler 2022), or even entitlement (Manne 2020) should be considered. In these and related cases there plausibly are both personal and social interests that hinder individuals from forming and/or sharing true beliefs. These are surely normatively secondary interests.

Lastly, non-epistemic COI are in part regulated by requiring the disclosure of potential COI (Giubilini & Savulescu 2020, 240f). What seems to be missing in present-day discourse is a requirement to disclose one's being part of an *epistemic* COI. However, doing so requires the capacity to recognize and acknowledge that one is, in fact, part of one. I hope that the conceptual framework provided in this paper is a first step in this direction.[19]

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DISCUSSION NOTES/ DEBATE

GETTIER UNSCATHED FOR NOW

John C. DUFF

ABSTRACT: Moti Mizrahi (2016) argues that Gettier cases are unsuccessful counterexamples to the traditional analysis of knowledge (TAK) because such cases inadequately reveal epistemic failures of justified true belief (JTB); and because Gettier cases merely demonstrate semantic inadequacy, the apparent epistemic force of Gettier cases is misleading. Although Mizrahi claims to have deflated the epistemic force of Gettier cases, I will argue that the presence of semantic deficiency in Gettier cases neither requires nor indicates the denial of the epistemic force of those cases. I will provide an extracted version of Mizrahi's argument, which I believe to be most charitable to his motivation. Then I will offer a counterexample to a pivotal premise in Mizrahi's argument, ultimately rendering the argument unsound. Finally, upon the examination of a plausible objection, I conclude that Gettier cases are epistemically sustained.

KEYWORDS: Gettier, justified true belief, traditional analysis of knowledge

Introduction

Gettier cases were formulated to challenge the *TAK*, by demonstrating that *JTB* does not necessarily entail knowledge (Feldman 2003, 37). Mizrahi (2016) argues that if Gettier cases can be shown to possess ambiguous designators, then those cases demonstrate semantic failure: "failing to refer to *x*," but not epistemic failure: "failing to know that *p*" (33). If Mizrahi's argument is sound, then Gettier cases pose no problem for the debate about knowledge. Mizrahi aligns his notion with Kripke's (1977) speaker and semantic reference example:

> Two people see Smith in the distance and mistake him for Jones. They have a brief colloquy: 'What is Jones doing?' 'Raking the leaves.' 'Jones,' in the common language of both, is a name of Jones; it never names Smith. Yet, in some sense, on this occasion, clearly both participants in the dialogue have referred to Smith, and the second participant has said something true about the man he referred to if and only if Smith was raking the leaves (whether or not Jones was) (263).

Since the "two people" actually see Smith, Smith is the semantic referent of the referential designator: Jones. Though Jones is the referential designator used to speak about Smith in the question about what Jones is doing, the person (speaker) who responds with "raking the leaves" means that Smith is raking the leaves even though the semantic meaning is that Jones is raking the leaves. Kripke (1977) sums it up as follows:

> So, we may tentatively define the speaker's referent of a designator to be that object

> which the speaker wishes to talk about, on a given occasion, and believes fulfills the conditions for being the semantic referent of the designator. He uses the designator with the intention of making an assertion about the object in question (which may not really be the semantic referent, if the speaker's belief that it fulfills the appropriate semantic conditions is in error). The speaker's referent is the thing the speaker referred to by the designator, though it may not be the referent of the designator, in his idiolect (264).

Thus, in context, "the speaker's referent of 'Jones' is Smith, whereas the semantic referent of 'Jones' is Jones" (Mizrahi 2016, 34).

Analogous to the illustration above, Mizrahi claims that the referential designators in Gettier-style cases are ambiguous. For example, Feldman's (2003) adapted version of Gettier's *Ten Coins* case will suffice to show that "Smith is justified in believing:

> 1c. Jones is the man who will get the job and Jones has ten coins in his pocket.
>
> 2c. The man who will get the job has ten coins in his pocket" (25-26).

The proposition in question is *the man who will get the job has ten coins in his pocket*. Mizrahi (2016) contends that the "coins" in Feldman's extraction is an ambiguous designator because "the speaker's referent of 'coins' is the ten coins that are in Jones' pocket, whereas the semantic referent of 'coins' is the ten coins that are in Smith's pocket" (34). Thus, for Mizrahi, there is no problem with whether Smith knows that the person who gets the job has ten coins in his pocket, but merely a problem with Smith's failure to refer to Jones as the *man who will get the job* (35). Mizrahi's point is controversial, and possibly false, given the fact that Mizrahi fudges Gettier's intended avoidance of direct reference. However, I will grant Mizrahi's assumptions for the sake of argument.

Although Mizrahi (2016) assess five different Gettier and Gettier-style cases, his conclusion remains constant across the board, that "Gettier cases are cases of reference failure because the candidates for knowledge in these cases contain ambiguous designators" (33), which merely appear to be epistemic failures.[1] If that

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[1] Mizrahi addresses the "Fake Barn Case (FBC)," to show that "other so-called Gettier-style cases without false lemmas" succumb to the same semantic failures. Mizrahi acknowledges that the conditions for *JTB* are met but the ambiguous designator in FBC is 'barn.' Thus, "it is not clear that, by using 'barn,' *S* manages to successfully refer to what fulfills the conditions for being the semantic referent of 'barn,' which is different from what *S* wishes to talk about. This means that, upon considering the Fake Barn case, we may be confusing the fact that *S* fails to refer to what actually fulfils the conditions for being the semantic referent of 'barn,' which is a semantic fact about the case, with an epistemic fact, namely, that *S* doesn't know that there's a barn over there" (37-38).

is the case, then Gettier and Gettier-style cases are not successful in demonstrating that one could lack knowledge while maintaining *JTB*. In the following section I will scrutinize Mizrahi's argument in detail, offering an analysis of the premises involved and a counterexample to a pivotal premise of Mizrahi's anti-Gettier attempt.

Assessment of Mizrahi's Argument

In the last section I provided an overview of Mizrahi's motivation to argue that Gettier and Gettier-style cases are misleading and thus unsuccessful in exposing *TAK*'s epistemic weakness. The following formal argument is a developed extraction of my own interpretation of Mizrahi's argument, which I believe to be the most charitable representation. I call it the *Anti-Gettier Argument*:

(1) If Gettier cases are counterexamples to knowledge as *JTB*, then Gettier cases are examples of epistemic failure. (Basic)

- "Gettier's argument against JTB can be summed up as follows:

    G1. If knowledge is JTB, then S knows that p in a Gettier case.

    G2. S doesn't know that p in a Gettier case.

Therefore,

    G3.   It is not the case that knowledge is JTB" (Mizrahi 2016, 31).

(2) If candidates for knowledge in Gettier cases contain ambiguous designators, then Gettier cases are examples of semantic failure. (Basic)

- "Gettier cases are cases of reference failure because the candidates for knowledge in these cases contain ambiguous designators" (Mizrahi 2016, 33).

(3) If Gettier cases are examples of semantic failure, then it is not the case that Gettier cases are examples of epistemic failure. (Basic)

- "I will argue that, contrary to appearances, Gettier cases are actually cases of semantic, not epistemic, failure" (Mizrahi 2016, 32).

(4) Candidates for knowledge in Gettier cases contain ambiguous designators. (Basic)

- "In Gettier's Case I, the speaker's referent of 'coins' is the ten coins that are in Jones' pocket, whereas the semantic referent of 'coins' is the ten coins that are in Smith's pocket. For this reason, 'coins' is an ambiguous designator in Gettier's Case I" (Mizrahi 2016, 34).

(5) If candidates for knowledge in Gettier cases contain ambiguous designators, then it is not the case that Gettier cases are examples of epistemic failure. (HS 2, 3)

(6) Thus, it is not the case that Gettier cases are examples of epistemic failure. (MP 4, 5)

(7) Thus, it is not the case that Gettier cases are counterexamples to knowledge as *JTB*. (MT 1, 6)

The extracted argument above is valid, so there is no problem with the truth of (7) if all premises are true. Since premises (5) and (6) are derived premises, if someone disagrees with the truth of (7), then premises (1) – (4) are open for scrutiny. Because I agree with premises (1) & (2) and assume the truth of (4) for the sake of argument, I will briefly discuss them. I believe premise (3) is contentious and deserves attention because the integrity of Mizrahi's argument depends on it. Here, I will start off by discussing what I believe to be the least controversial premises of Mizrahi's argument.

Premise (1) simply states the standard for Gettier cases, that if *JTB* can be held without knowledge, then the *TAK* is incomplete or false. Premise (1) can be consistently held by both supporters of *TAK* and those who are convinced by Gettier-style cases. Thus, I will say no more about premise (1).

Premise (2) seems correct to me. Propositions or beliefs containing ambiguous designators involve semantic failures if the designators in question do not accidentally refer to the same thing. As shown above in the *Ten Coins* case, the "coins" are the ambiguous designator, since the coins in Smith's pocket are not the coins Smith is referring to. Because Smith is referring to Jones' coins, the belief that "the man who will get the job has ten coins in his pocket" refers to anybody but Jones' coins is a semantic failure.

As alluded to in the last paragraph, premise (4) – the *candidates for knowledge in Gettier cases contain ambiguous designators* – is plausible because in each case there is a conflation of two designators with slightly different referents. In the *Ten Coins* case for example, Smith's belief that *the man who will get the job has ten coins in his pocket* is precisely because Smith knows that Jones has ten coins in his pocket. The ten coins in Smith's pocket is not a designator in the example because Smith is referring to what is in Jones' pocket, not his own. Mizrahi implies that all Gettier cases meet premise (4). Though Mizrahi may be incorrect, I will accept (4) for the sake of argument, time, and space.[2]

Finally, I turn to premise (3), which I believe to be the cornerstone of success for Mizrahi's argument (stated again for clarity):

(3) If Gettier cases are examples of semantic failure, then it is not the case that

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[2] Another potential problem surfaces if it can be demonstrated that Mizrahi misdiagnoses the ambiguous designator. Perhaps "Jones" is the ambiguous designator in the *Ten Coins* case.

Gettier cases are examples of epistemic failure. (Basic)

Premise (3), in other words, states that Gettier cases are examples of semantic failure, *only if* they are not examples of epistemic failure. Though Mizrahi is neither explicit about premise (3), nor noticeably clear about why semantic failure somehow negates epistemic failure, the indication that "Gettier cases are actually cases of semantic, not epistemic, failure" is overwhelming. Simply stated, the proposition is structured as such: In every case *x*, if *x* is a Gettier case (*G*), then *x* is not an epistemic failure (¬*E*) and *x* is a semantic failure (*S*): $\forall x\,(G(x) \to \neg E(x) \wedge S(x))$.

There are at least two conditions by which (3) is open for rejection, by demonstrating that: (i) at least one example of semantic failure involves epistemic failure; and (ii) at least one Gettier case contains both semantic and epistemic failure. I will borrow Mizrahi's *Green Cheese* example[3] as a demonstration of (i), then, continuing with the same line of reasoning, I will demonstrate (ii), focusing on the *Ten Coins* case as outlined above.

The *Green Cheese* example is presented by Mizrahi as an illustration of the difference between semantic and epistemic failure but fails to differentiate between the two by only highlighting what Mizrahi believes to be sematic failure. However, I will reveal that the semantic failure of the *Green Cheese* example also involves an epistemic failure. The adapted proposition in question in Mizrahi's *Green Cheese* example is:

1g. Moti believes the table in front of him is comprised of *matter*.

Moti believes that *matter* is green cheese. Note that in proposition 1g the speaker's referent to *matter* is stuff comprised of green cheese, but the semantic referent to *matter* is stuff comprised of atoms. Since Moti believes the table in front of him is comprised of green cheese, he does not know that the table is made of matter. Thus, according to Mizrahi, Moti's failure to know is merely semantic since what Moti is referring to when he says "matter" is not equivalent to the semantic referent of atoms. However, the semantic failure is entailed by the epistemic failure. It is

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[3] Mizrahi's *Green Cheese* example: "To illustrate the difference between semantic failure…and epistemic failure…, suppose I believe that this table is made of matter. By 'matter,' however, I do not mean atoms that are made of subatomic particles. Rather, I use 'matter' to talk about green cheese. And I believe that everything in the universe, including this table, is made of green cheese. In that case, when I believe that this table is made of matter, I actually believe that this table is made of green cheese, since I use 'matter' to refer to green cheese. If I were to use 'matter' to refer to what fulfills the conditions for being the semantic referent of 'matter,' i.e., if I were to use 'matter' to refer to atoms, then perhaps I would know that this table is made of matter. But I use 'matter' to refer to green cheese, not atoms, and so my failure is semantic…, not epistemic…" (Mizrahi 2016, 40).

precisely Moti's failure to *know* the table is made of matter that leads to Moti's failure to refer to the semantic referent of matter, i.e., atoms. Thus, although the *Green Cheese* example involves an ambiguous designator, Moti fails "to know that *p*" and fails "to refer to *x*" (Mizrahi 2016, 40).

The same reasoning is carried through to Gettier's *Ten Coins* case. Proposition 2c – *the man who will get the job has ten coins in his pocket* – is the knowledge proposition in question. The semantic failure here is granted since Smith's belief that the ten coins of the man who will get the job are the coins in Jones' pocket and not his own. But, similar to the *Green Cheese* example above, Smith's failure to know that 2c is precisely why there is a failure to refer to the semantic referent, i.e., Jones' coins. Thus, in the *Ten Coins* case, Smith fails "to know that *p*" and fails "to refer to *x*."

Premise (3), then, is false. The consequent does not follow from the antecedent because it is possible that a least one case of epistemic failure involves semantic failure, and I have shown that at least one Gettier case, i.e., the *Ten Coins* case, contains both semantic and epistemic errors. Though *TAK* may turn out to be inoculated from Gettier-style reasoning, Mizrahi's argument does not accomplish that task. Next, I will turn to a potential objection and briefly offer a response to it.

A Plausible Objection

As discussed above, Mizrahi's argument is unsound given the falsity of premise (3). In light of my counterexample to premise (3), that at least one Gettier case can be shown to fail both semantically and epistemically, there is a potential objection that aims to undermine my intuition. Perhaps Mizrahi's argument could be reworded to capture both epistemic and semantic failures in such a manner by the addition of "merely" (underlined in the restructured argument):

(1*) If Gettier cases are counterexamples to knowledge as *JTB*, then Gettier cases are <u>merely</u> examples of epistemic failure. (Basic)

(2) If candidates for knowledge in Gettier cases contain ambiguous designators, then Gettier cases are examples of semantic failure. (Basic)

(3*) If Gettier cases are examples of semantic failure, then it is not the case that Gettier cases are <u>merely</u> examples of epistemic failure. (Basic)

(4) Candidates for knowledge in Gettier cases contain ambiguous designators. (Basic)

(5*) If candidates for knowledge in Gettier cases contain ambiguous designators, then it is not the case that Gettier cases are <u>merely</u> examples of epistemic failure. (HS 2, 3)

(6*) Thus, it is not the case that Gettier cases are <u>merely</u> examples of epistemic failure. (MP 4, 5)

(7) Thus, it is not the case that Gettier cases are counterexamples to knowledge as *JTB*. (MT 1, 6)

The introduction of one word to the argument undermines my counterexample. I suppose Mizrahi could say "yeah that's what I meant," but that is not yet the case. Nonetheless, the addition of "merely" in premise (3) changes the meaning to agree with my counterexample while maintaining structural validity. However, to maintain validity, premise (1) would need to conform as well, straying from the intention of Gettier's cases. Nothing in Gettier-style cases suggests that "mere" epistemic failure is necessary to refute knowledge as JTB.

Conclusion

I have examined a potential flaw in Gettier-style cases, specifically Moti Mizrahi's argument that Gettier-style cases insufficiently refute the traditional analysis of knowledge, because they merely demonstrate semantic failures not epistemic failures. I developed a formal extraction of Mizrahi's argument and established that a pivotal premise was false, thereby collapsing the *Anti-Gettier Argument*. A potential objection to my counterexample showed that the *Anti-Gettier Argument* could be restored, but only at the expense of expunging Gettier-style intentions. For now, it appears as though Gettier is out of the weeds.

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A NOTE ON "A CONNEXIVE CONDITIONAL"

Heinrich WANSING and Hitoshi OMORI

ABSTRACT: In a recent article, Mario Günther presented a conditional that is claimed to be connexive. The aim of this short discussion note is to show that Günther's claim is not without problems.

KEYWORDS: connexive logic, conditionals, Aristotle's thesis, Boethius' thesis, strongly connexive logic, consequential implication, contra-classical logic, many-valued logic, constructive logic, negation inconsistency

As Mario Günther writes in (2022, 52), connexive logics are characterized by the following theses, together with the invalidity of $(A \rightarrow B) \rightarrow (B \rightarrow A)$.

Aristotle's theses: $\neg(\neg A \rightarrow A)$, $\neg(A \rightarrow \neg A)$

Boethius' theses: $(A \rightarrow B) \rightarrow \neg(A \rightarrow \neg B)$, $(A \rightarrow \neg B) \rightarrow \neg(A \rightarrow B)$

Given this definition of connexive logic, introduced by the modern founder of this topic, namely Storrs McCall in (1963; 1966), and followed by Wansing (2022), Günther's conditional is *not* connexive. It does, however, have some connexive flavour to it. Let us now turn to explain this in some details by pointing to some related developments.

What Günther follows at the beginning of (2022, §2) is a relatively recent suggestion made by Andreas Kapsner in (2012), requiring not only the above connexive theses, but also the following conditions.

UnSat1: In no model, $(A \rightarrow \neg A)$ is satisfiable, and neither is $(\neg A \rightarrow A)$, (for any A).

UnSat2: In no model, $(A \rightarrow B)$ and $(A \rightarrow \neg B)$ are satisfiable simultaneously (for any A and B).

The resulting systems that satisfy both of these additional conditions, together with the connexive principles, are called *strongly connexive logics*. Note also that logics that satisfy the Unsat principles are labeled as *Kapsner strong* by Luis Estrada-González and Elisángela Ramírez-Cámara in (2016, 347). With these notions in mind, Günther's system is Kapsner strong and satisfies Aristotle's thesis, but *not* Boethius' thesis.

We should note further that there are a number of systems in the literature that follow the same pattern of not being connexive, but being Kapsner strong and that satisfy Aristotle's thesis. First, and most importantly, systematic investigations by Claudio Pizzi, later partly with Timothy Williamson, must be acknowledged. In (1977), Pizzi develops the first system that can be seen as following the above pattern. Note also that Pizzi was the first, to the best of our knowledge, who introduced the following variant of Boethius' thesis, originally called *conditional Boethius' thesis* in (1977), and later called *weak Boethius' thesis* in (1996):[1]

> **Weak Boethius' thesis**: $(A \rightarrow B) \supset \neg(A \rightarrow \neg B)$.

Then, since (1977), Pizzi developed a number of systems that are Kapsner strong and satisfy Aristotle's thesis as well as Weak Boethius' thesis, but *not* Boethius' thesis (the fact that the systems are Kapsner strong is not observed by Pizzi himself, but it can be easily confirmed by simple calculations). Moreover, Pizzi (1977, 289) discusses the conditional considered by Günther, and thus the conditional discussed in (Günther 2022) is not novel to Günther. Other examples that follow the same pattern include Graham Priest's system in (1999) as well as more recent investigations into variations of strict implication by Guido Gherardi and Eugenio Orlandelli in (2021; 2022). In footnote 6 of (Günther 2022), Priest's method is described as more complicated, but this is not the case. Priest's recipe is exactly the same as the one by Günther (2022) in which the antecedent of a conditional is required to be possible. Priest does also consider another version requiring in addition that the consequent of a conditional is not necessary, but that is not terribly more complicated either. Unfortunately, Günther (2022) does not define a notion of semantic consequence. Priest (1999) considers two such definitions for a language containing the conditional advocated by Günther. The familiar definition has the consequence of invalidating $p \rightarrow p$ for atomic formulas p, whereas building the satisfiablilty constraint into the definition of entailment results in a system that is neither monotonic nor closed under uniform substitution. The former property may be seen as casting doubt on the applicability of the promoted conditional in natural language semantics, whilst the failure of closure under uniform substitution casts doubt on the logicality of the system defined.

Before closing, here are three more remarks. First, what might be interesting to note, though not stressed by Günther, is that a simple variant of Lewis' conditional will bring us to the realm of *contra-classical logics* (cf. (Humberstone 2000)). The

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[1] This was not acknowledged by Kapsner in (2012) in which connexive logics that do not satisfy the Unsat principles are labelled, perhaps unfortunately, as weakly connexive logics in contrast to strongly connexive logics.

same applies to the variants of strict implications explored by Gherardi and Orlandelli, and this seems to be a simple and interesting route to contra-classicality. Second, what remains to be an interesting challenge is to devise a strongly connexive logics that enjoys an intuitive semantics. Note here that strongly connexive logics exist, as noted by Kapsner (2012), since Angell and McCall's four-valued logic **CC1** is an example. But, it is far from enjoying an intuitive semantics. On the other hand, the system **C**, introduced by Wansing (2005), enjoys an intuitive semantics (cf. (Priest 2008, 178)), but it is not strongly connexive.[2] Therefore, the problem remains open to find a system that is strongly connexive and has an intuitive semantics.[3] Third, Günther's endorsement of the allegedly connexive conditional seems to be driven by his view that conditionals with contradictory antecedents are "not exactly intelligible" and that "non-trivial reasoning from inconsistent premises poses at least a challenge for intelligibility." However, this seems to be exactly the challenge posed by the presence of the system **C** since it enjoys an intuitive semantics, but is also negation inconsistent *without* being trivial. Moreover, Günther also holds (notation adjusted) that "the truth of $A \land \neg A \to B$ for any B is hardly intelligible," and seems to be welcoming that $A \land \neg A \to B$ is not valid with respect to his allegedly connexive conditional. But, how about the case with the entailment? If the familiar definition is taken, then one will still have $A \land \neg A \vDash B$. Is this intelligible? If not, Günther may prefer Priest's alternative suggestion, or some of its variations. In the end, it seems that Günther simply repeats for the Lewis-Stalnaker conditional what Priest suggested for a strict conditional. There might be something revealing in working with a Lewis-Stalnaker conditional instead of a strict one, but that is at least not made clear in (Günther 2022). It remains to be seen what are the particular implications when we combine the Lewis-Stalnaker conditional with Priest's framework.[4]

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[2] It can be seen as strongly connexive in some sense, however, if one is happy to spell out the notion of satisfiablity in a somewhat unusual manner (cf. (Omori &Wansing 2020, 514)).

[3] It should be noted that if one finds the approach via the relating semantics sufficiently intuitive, then there is an example of strongly connexive logics developed in (Jarmużek & Malinowski 2019). This, however, is not without problems either, but the details will go well beyond the aim of this note, and we will leave the discussion on this matter for another occasion.

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