

MULTI-PEER DISAGREEMENT AND THE PREFACE PARADOX

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Abstract The problem of multi-peer disagreement concerns the reasonable response to a situation in which you believe $P_1 \dots P_n$ and disagree with a group of ‘epistemic peers’ of yours, who believe $\sim P_1 \dots \sim P_n$, respectively. However, the problem of multi-peer disagreement is a variant on the preface paradox; because of this (*pace van Inwagen*) the problem poses no challenge to the so-called ‘steadfast view’ in the epistemology of disagreement, on which it is sometimes reasonable to believe P in the face of peer disagreement about P . After some terminology is defined (§1), van Inwagen’s challenge to the steadfast view will be presented (§2). The preface paradox will then be presented and diagnosed (§3), and it will be argued that van Inwagen’s challenge relies on the same principle that generates the preface paradox (§4). The reasonable response to multi-peer disagreement will be discussed (§5), and an objection addressed (§6).

One problem in the epistemology of disagreement (Kelly 2005, Feldman 2006, Christensen 2007) concerns **individual peer disagreement**; this problem concerns the reasonable response to a situation in which you believe P and disagree with an ‘epistemic peer’ of yours (more on which notion in a moment), who believes $\sim P$. Another (Elga 2007, pp. 486-8, Kelly 2010, pp. 160-7) concerns **serial peer disagreement**; this problem concerns the reasonable response to a situation in which you believe $P_1 \dots P_n$ and disagree with an ‘epistemic peer’ of yours, who believes $\sim P_1 \dots \sim P_n$. A third, which has been articulated by Peter van Inwagen (2010, pp. 27-8), concerns **multi-peer disagreement**; this problem concerns the reasonable response to a situation in which you believe $P_1 \dots P_n$ and disagree with a group of ‘epistemic peers’ of yours, who believe $\sim P_1 \dots \sim P_n$, respectively. However, the problem of multi-peer disagreement is a variant on the preface paradox; because of this (*pace van Inwagen*) the problem poses no challenge to the so-called ‘steadfast view’ in the epistemology of disagreement, on which it is sometimes reasonable to believe P in the face of peer disagreement about P .

After some terminology is defined (§1), van Inwagen’s challenge to the steadfast view will be presented (§2). The preface paradox will then be presented and diagnosed (§3), and it will be argued that van Inwagen’s challenge relies on the same principle that generates the preface paradox (§4). The reasonable response to multi-peer disagreement will be discussed (§5), and an objection addressed (§6). The aim of this paper is to defend the steadfast view against one particular objection. Other objections to that view – in particular, objections that appeal to individual or serial peer disagreement¹ – are set aside; our argument (§§4-6) does not speak to those objections. We also set aside positive arguments in favor of the steadfast view.

1 Preliminaries

¹ Cf. the objection from arbitrariness (White 2005, Feldman 2006; cf. Kelly 2005, 2010) and the objection from the illegitimacy of bootstrapping (Elga 2007, pp. 486-8; cf. Kelly 2010, pp. 160-7, Weisberg 2010).

The **steadfast view** says that it is sometimes reasonable to believe P in the face of peer disagreement about P. The notion of an ‘epistemic peer’ and the notion of ‘believing P in the face of peer disagreement about P’ require articulation. The notion of an ‘epistemic peer’ is a technical notion, developed by epistemologists to describe a particular species of disagreement. Some writers understand this terminology such that two people are peers when they are equals in epistemic virtue, or when it comes to the epistemic virtues relevant to some topic (Gutting 1982, p. 83, cf. Bergmann 2009, p. 336). Equality of virtue could be understood in terms of a list of paradigm virtues, e.g. ‘general epistemic virtues such as intelligence, thoughtfulness, and freedom from bias’ (Kelly 2005, p. 175), sincerity in seeking the truth (Bergmann 2009, p. 336), or openmindedness, intellectual integrity, intellectual honesty, and so on (cf. Gutting, op. cit.). Alternatively, equality of virtue might be understood in externalist terms, e.g. as requiring equal reliability, or equal reliability when it comes to some topic (Elga 2007, p. 499, Kelly 2010, p. 112). Finally, one might require both equality of virtue and that peers be equals when it comes to evidence, again perhaps relative to some topic (Kelly 2005, pp. 174-5). In what follows, two people are **epistemic peers (relative to some topic)** only if they are (roughly) equally reliable (when it comes to that topic), where **reliability** (relative to some topic) is the ratio of a person’s true beliefs to false beliefs (about that topic).² Given this assumption, evidence of a would-be peer’s lesser reliability is evidence that she is not, after all, your peer.

Someone **believes P in the face of peer disagreement about P** iff she believes P and reasonably believes that an epistemic peer disagrees with her about P. And two people **disagree** iff one believes P and the other believes ~P. This definition is (partly) stipulative, and is designed to focus our attention on certain paradigm cases of disagreement. We leave open whether there are other species of disagreement, including cases in which one person believes P and another suspends judgment about P and cases in which one person believes P and another has no attitude towards P.

2 Van Inwagen’s challenge

Van Inwagen (2010) asks you to imagine a case of philosophical disagreement between yourself, a defender of ‘Ism’, and ‘Nisimists’, where your belief in Ism is based on an apparent entailment that Nisimists do not grant. You know that the Nisimists are your epistemic peers. Van Inwagen considers the following line of line of reasoning, in defense of maintaining your own view in such a case:

It is not that my cognitive faculties function better than theirs. Theirs are as reliable as mine. But theirs are not identical to mine, and, in this case, some accidental feature of my cognitive architecture has enabled me to see the entailment that is hidden from the Nismists. (p. 27)

So far, this is in line with the steadfast view. And so far this sounds unobjectionable. As Thomas Kelly (2005) argues:

[A] revision in my assessment of our relative levels of competence is in no way mandated by the judgement that one of us has proven superior

² The assumption of this conception of peerhood – as opposed, for example, to a conception on which sameness of evidence is required – will not make a difference in what follows

with respect to the exercise of our competence on a given occasion. Two chess players of equal skill do not always play to a draw; sometimes one or the other wins, perhaps even decisively. (p. 179)

However, van Inwagen argues that there is a problem with the steadfast view:

I accept *lots* of philosophical propositions that are denied by many able, well-trained philosophers. Am I to believe that in every case in which I believe something many other philosophers deny ... I am right and they are wrong, and that, in every such case, my epistemic circumstances are superior to theirs? Am I to believe that in every such case this is because some neural quirk has provided me with evidence that is inaccessible to them? If I do believe this ... is it the same neutral quirk in each case or a different one? If it is the same one, it begins to look more a case of 'my superior cognitive architecture' [but i]f it is a different one in each case – well, that is quite a coincidence, isn't it? All these evidence-provoking quirks come together in one person, and that person happens to be me. (op. cit., p. 27)

Van Inwagen here schematically describes a case of multi-peer disagreement, and his point is that it would be unreasonable to think, in such a case, either that you have cognitive architecture that is superior to that of all of your would-be peers, in which case they are not really your peers after all (cf. §1), or that some coincidence has led to your being right all the time, in every would-be peer disagreement to which you are party. And so the argument must have gone wrong somewhere, and the culprit seems to be the steadfast view.³ For the steadfast view says that it is sometimes reasonable to believe P in the face of peer disagreement about P (§1); what van Inwagen asks us to imagine is merely a set of cases of the sort whose existence is implied by the steadfast view.

Let's articulate this schematic argument a bit more formally. Assume, for reductio, the steadfast view (§1): it is sometimes reasonable to believe P in the face of peer disagreement about P. This implies the existence of the following case: you know that S₁ is an epistemic peer of yours, and that you believe Q₁ and S₁ believes ~Q₁, and it is reasonable for you to believe Q₁. It seems that you can permissibly reason as follows:

Q₁ is true, and I believe Q₁ while S₁ believes ~Q₁. Therefore, my belief (about Q₁) is true and S₁'s belief (about Q₁) is false.

But now consider *all* the peer disagreements to which you are a party, and in which it is reasonable for you to maintain your belief. You disagree with S₂ about Q₂, with S₃ about Q₃, and so on. You disagree with S₂ ... S_n about Q₂ ... Q_n, respectively. If you are permitted to continue believing Q₂ ... Q_n, then it seems that you can permissibly reason in an analogous way, in each individual case of disagreement:

Q₂ is true, and I believe Q₂ while S₂ believes ~Q₂. Therefore, my belief (about Q₂) is true and S₂'s belief (about Q₂) is false.

³ N.b. that van Inwagen (2010) does not endorse this conclusion: he is inclined towards the steadfast view, but finds himself in the "predicament" or being "unable to answer" this challenge (p. 28).

...
The proposition Q_n is true, and I believe Q_n while Q_n believes $\sim Q_n$.
Therefore, my belief (about Q_n) is true and S_n 's belief (about Q_n) is false.

You now seem to be in a position to permissibly reason as follows:

Therefore, in all of my would-be peer disagreements with $S_1 \dots S_n$, I am right and my would-be peer is wrong. But this is true of none of $S_1 \dots S_n$: each of them is wrong in at least one of their would-be peer disagreements, namely, in their disagreement with me. Either (i) this disparity is explained by the fact that $S_1 \dots S_n$ are not my epistemic peers, or (ii) this disparity is an unlikely coincidence.

Therefore, you may reasonably believe that either your would-be peers are in fact your epistemic inferiors or the relevant disparity is an unlikely coincidence. But this seems an unreasonable thing to believe. It would be dogmatic to insist, in the face of disagreement with multiple would-be peers, that your would-be peers are in fact your epistemic inferiors, and absurd to suppose that the relevant disparity is an unlikely coincidence. The culprit, so the argument goes, is the steadfast view, which implies your permission to continue believing $Q_1 \dots Q_n$ in the face of your peer disagreements with $S_1 \dots S_n$.

We have focused our attention on cases of multi-peer disagreement in which you disagree with each of a number of would-be peers about each of a number of propositions, one for each peer. This focus abstracts away from the details of real-world disagreements in favor of a schematic description, but our conclusion can be generalized, *mutatis mutandis*, to cover more realistic cases. However, one kind of case of multi-peer disagreement should be bracketed for the purposes of this discussion: the case in which you adopt a minority position, believing P while reasonably believing that *most* of your peers believe $\sim P$. This kind of case can be bracketed for two reasons. First, the steadfast view (§1) does not suggest that reasonable believe is possible, in such a case. Second, there is no apparent implication of superior cognitive architecture or unlikely coincidence in such a case. Such an apparent implication only arises when there is systematic disparity between you and your would-be peers; in the present case, there is mere difference, which might be systematic, but which might also be one-off.

3 The preface paradox and multi-premise closure

Here's an articulation of the **preface paradox** (cf. Makinson 1965). An author has just finished a meticulously researched book, which asserts the propositions $Q_1 \dots Q_n$. However, she also knows that even meticulously researched books are rarely error-free, and admits that her book probably contains some errors, i.e. that some of her assertions are false. However, her assertion of each of $Q_1 \dots Q_n$ seems to commit her to their conjunction – and that is inconsistent with the assertion that some of $Q_1 \dots Q_n$ are false.

The paradox can be articulated at the level of belief rather than at the level of assertion. Imagine that the author is sincere, and she believes each of $Q_1 \dots Q_n$. Because of her meticulous research, each of these beliefs is reasonable. But if she reasonably believes each of $Q_1 \dots Q_n$, then she seems committed to believing their

conjunction. And so it seems reasonable for her to believe their conjunction. But if it is reasonable to believe that, then it seems reasonable to believe that none of her beliefs in each of $Q_1 \dots Q_n$ is false. And yet it is plausible that humility requires believing that some of those beliefs are false, and thus it seems reasonable for the author to believe that some of her beliefs are false. But we have arrived at the seemingly absurd conclusion that it is reasonable for the author to believe that none of her beliefs (in each of $Q_1 \dots Q_n$) is false and reasonable for her to believe that some of her beliefs (in each of $Q_1 \dots Q_n$) are false.

The principle that generates the preface paradox is:

Multi-premise closure for reasonable belief: (For all $S, P_1 \dots P_n, Q$) If it is reasonable for S to believe each of $P_1 \dots P_n$, and reasonable for S to believe that $P_1 \dots P_n$ together entail Q , then it is reasonable for S to believe Q .

In the case described, the author reasonably believes each of $Q_1 \dots Q_n$, and it was assumed that it is reasonable for her to believe that these together entail that none of said beliefs is false. Multi-premise closure is the principle needed to generate the objectionable conclusion that it is reasonable for the author to believe that none of her beliefs in each of $Q_1 \dots Q_n$ is false. That multi-premise closure is needed to generate the objectionable conclusion means that, if multi-premise closure is false, then we are free to reject the inference to the objectionable conclusion.

4 Van Inwagen's challenge and multi-premise closure

However, multi-premise closure is also needed for a crucial move in articulating van Inwagen's challenge (§2). In that case, for each of the Q_i , you are reasonable in believing:

- (I) My belief about Q_i is true and S_i 's belief about Q_i is false.

And it was assumed that, from these beliefs, you could reasonably infer:

- (II) In all of my would-be peer disagreements with $S_1 \dots S_n$, I am right and my would-be peer is wrong.

After all, your type-(I) beliefs, together, obviously entail (II). Multi-premise closure is the principle we need to generate the objectionable conclusion that it is reasonable for you to believe (II), given the reasonableness of your type-(I) beliefs. But this means that, if multi-premise closure is false, then we are free to reject the inference from the reasonableness of your type-(I) beliefs, to the reasonableness of your believing (II). If multi-premise closure is false, there is no need to conclude that, in all of your would-be peer disagreements, you are right and your would-be peer is wrong. And if multi-premise closure is false, the steadfast view does not imply that, in general, in cases of multi-peer disagreement, it is reasonable for you to believe that, in every case, you are right and your would-be peer is wrong. Without this conclusion, there is no suggestion that either your would-be peers are really your inferiors or there has been some unlikely coincidence (cf. §5). So if multi-premise closure is false, van Inwagen's challenge does not threaten the steadfast view.

5 The reasonable response to multi-peer disagreement

What then is the reasonable response to multi-peer disagreement? It seems that van Inwagen's case of serial disagreement (§2) is analogous to the preface case (§3). This suggests that the reasonable response to multi-peer disagreement will be analogous to the reasonable response to the author's situation in the preface case. As was suggested above (§3), it seems that the reasonable response to the author's situation is for her to believe that her book contains some errors; this is what humility requires. Analogously, it seems that in (at least some) cases of multi-peer disagreement, humility requires you to believe that in some of the relevant disagreements your peer is right and you are wrong.

This assumes the most popular solution to the preface paradox: rejecting multi-premise closure (Kyburg 1961, Foley 1979, Christensen 2004). This requires saying that it is possible for inconsistent beliefs to be individually reasonable. This solution maintains that the author can reasonably believe each of $Q_1 \dots Q_n$ and reasonably believe that at least one of $Q_1 \dots Q_n$ is false. If this is plausible, then it is equally plausible to maintain that, in cases of multi-peer disagreement, you can reasonably believe each of $Q_1 \dots Q_n$ and reasonably believe that some of $S_1 \dots S_n$ are right about some of $Q_1 \dots Q_n$. Van Inwagen's absurd conclusion (§2) does not follow from the steadfast view.

There are independent reasons to reject multi-premise closure. The probability of a conjunction $C_1 \& C_2$ is always less than the probability of the two conjuncts, C_1 and C_2 , where the probability of each conjunct is less than 1 and greater than 0,⁴ so repeated applications of conjunction introduction will diminish probability. Assume some degree of probability less than 1 is sufficient for reasonable belief. It will then be possible for someone to reasonably believe $P_1 \dots P_n$, where the probability of each of $P_1 \dots P_n$ is less than 1 but greater than the degree required for reasonable belief. But for sufficiently large n , the conjunction of $P_1 \dots P_n$ will have a probability below the degree required for reasonable belief. It will therefore be reasonable for her to believe each of $P_1 \dots P_n$ but not reasonable for her to believe their conjunction.

You might object that multi-premise closure should be preserved, and conclude that (for example) the author in the preface case ought to conclude that her book is error-free. But *if* that is a plausible solution to the preface paradox, *then* so is the following thought: in cases of multi-peer disagreement, you ought to conclude that either your would-be peers are in fact your epistemic inferiors or the relevant disparity is an unlikely coincidence. So even if multi-premise closure is not rejected, the steadfast view can be defended by appeal to this alternative solution to the preface paradox. However, the defender of the steadfast view must assume an **anti-skeptical** approach to the preface paradox: it is not plausible to solve the preface paradox by concluding that it is not the case that the author ought to believe each of $Q_1 \dots Q_n$.

6 An objection

Intuitively, although the author in the preface case ought not believe that her book is error-free, it is reasonable for her to believe that her book is *mostly* error-free. After all, it is meticulously researched. It has been argued (§4) that Van Inwagen's case of

⁴ Assuming, as well, that the probability of C_1 given C_2 and the probability of C_2 given C_1 are both less than 1.

serial disagreement (§2) is analogous to the case of the author in the preface case (§3). This suggests that it is reasonable, in cases of multi-peer disagreement, for you to believe that in *most* of the relevant disagreements, you are right and your peer is wrong. You might think that this commitment is problematic, on the grounds that your being right in *most* of the relevant disagreements amounts to a disparity between you and your would-be epistemic peers – and thus reason to conclude that either your would-be peers are in fact your inferiors or that said disparity is an unlikely coincidence.

The steadfast view says that it is sometimes reasonable to believe P in the face of peer disagreement about P (§1). Imagine, for the sake of simplicity, that exactly three of your beliefs amount to cases in which it is reasonable for you to believe P in the face of peer disagreement about P, i.e. that you reasonably disagree with exactly three peers S₁ ... S₃ about exactly three propositions Q₁ ... Q₃. Suppose, now, that you are right in most of these disagreements – for example, that you are right in exactly two of them. Does this entail that you are more reliable than any of S₁ ... S₃? Consider the case described by this table, where ‘T’ indicates that the relevant person has a true belief about the relevant proposition and ‘F’ indicates that she has a false belief.

CASE A

	You	S ₁	S ₂	S ₃
Q ₁	T	F	T	T
Q ₂	T	T	F	T
Q ₃	F	F	F	T

In CASE A, S₁ and S₂ are less reliable than you, and so they are not in fact your peers (relative to the topic comprised by Q₁ ... Q₃) (§1). In a case in which you disagree with each of S₁ ... S_n about Q₁ ... Q_n, a disparity in reliability will be implied so long as we assume that you and S₁ ... S_n all either believe or disbelieve⁵ each of the relevant propositions. However, it is easy to imagine cases where this is false. Someone can neither believe nor disbelieve a proposition when she has formed no opinion about some question (for example, when she has not had enough time to consider it). Consider the case described by this table, where ‘-’ indicates that the relevant person neither believes nor disbelieves the relevant proposition:

CASE B

	You	S ₁	S ₂	S ₃
Q ₁	T	F	-	-
Q ₂	T	-	F	T
Q ₃	F	-	-	T
Q ₄	-	T	-	-
Q ₅	-	T	-	-
Q ₆	-	-	T	-
Q ₇	-	-	T	-
Q ₈	-	-	-	F

⁵ Where disbelieving P is believing the negation of P.

In CASE B, S_1 and S_2 are no less reliable than you. It appears that you and $S_1 \dots S_3$ are epistemic peers (relative to the topic comprised by $Q_1 \dots Q_8$). The fact that you disagree about some proposition with some (individual) peer of yours does not suggest that she isn't generally or mostly or highly reliable on the relevant topic – that's just Kelly's point (§2) about individual peer disagreement. But this thought can apply to each and every one of your disagreeing peers. When it comes to each of these peers, you may reasonably conclude that she is wrong about the relevant proposition. This is compatible with her being generally or mostly or highly reliable in her beliefs. And since you do not take yourself to be infallible in your beliefs, but only generally or mostly or highly reliable, there is no disparity entailed between you and your peers. Trouble comes only if, by appeal to multi-premise closure, you think that you are forced to take yourself to be infallible in your beliefs (cf. §2).

It may be conceded that the supposition that you are right in most of your peer disagreements is problematic in some cases – namely, those resembling CASE A. But this is consistent with the steadfast view, which says only that it is *sometimes* reasonable to believe P in the face of peer disagreement about P (§1). This concession would not diminish the relevance of the steadfast view, since many ordinary cases of multi-peer disagreement resemble CASE B. The reason is that most people are not maximally opinionated: there are many propositions, believed by others, about which you have not formed an opinion.

When it comes to CASE B, you might object that, although you and $S_1 \dots S_3$ are all equally reliable, you are not all equally peer-relative reliable, where **peer-relative reliability** is the ratio of a person's true beliefs to false beliefs about propositions about which she disagrees with an epistemic peer. In CASE B, your peer-relative reliability is $2/3$, whereas S_1 's and S_2 's peer-relative reliability is $0/1$. This disparity in peer-relative reliability, so the objection goes, looks either like evidence of superior cognitive architecture or an unlikely coincidence (cf. §2). The culprit, again, seems to be the steadfast view, which licensed believing $Q_1 \dots Q_3$. However, the apparent coincidence involved in CASE B doesn't involve your getting things right more often than their peers; the apparent coincidence merely involves your being party to an abnormally high number of peer disagreements. The disparity in peer-relative reliability, in CASE B, isn't explained by your superior reliability, but rather by your being party to more peer disagreements than your peers. It is easy to imagine explanations for this – perhaps you tend to think about more controversial questions than your peers, and thus have formed more opinions about questions about which other people also have formed opinions. That you are party to more controversies than your peers is neither evidence of 'superior cognitive architecture' nor an unlikely coincidence.

7 Conclusion

The problem of multi-peer disagreement does not threaten the steadfast view (§1), given that van Inwagen's challenge (§2, §4) relies on the same principle of multi-premise closure that generates the preface paradox (§3). In (at least some) cases of multi-peer disagreement, it is reasonable to believe that in *some* of the relevant disagreements, your peer is right and you are wrong (§5), but you may reasonably believe that in *most* of the relevant disagreements, you are right and your peer is wrong (§6).

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Bibliography

- Bergmann, M. (2009), 'Rational Disagreement After Full Disclosure', *Episteme* 6:3, pp. 336-53.
- Christensen, D. (2004), *Putting Logic in Its Place: Formal Constraints on Rational Belief* (Oxford: Oxford University Press).
- (2007), 'Epistemology of Disagreement: The Goods News', *Philosophical Review* 116(2), pp. 187-217.
- Elga, A. (2007), 'Reflection and Disagreement', *Noûs* 41(3), pp. 478-502.
- Feldman, R. (2006), 'Epistemological Puzzles about Disagreement', in S. Hetherington (ed.), *Epistemology Futures* (Oxford: Oxford University Press), pp. 216-36.
- Foley, R. (1979), 'Justified Inconsistent Beliefs', *American Philosophical Quarterly* 16:4, pp. 247-57.
- Gutting, G. (1982), *Religious Belief and Religious Skepticism* (South Bend: University of Notre Dame Press).
- Kelly, T. (2005), 'The Epistemic Significance of Disagreement', *Oxford Studies in Epistemology* 1, pp. 167-96.
- (2010), 'Peer Disagreement and Higher-Order Evidence', in R. Feldman and T.A. Warfield (eds.), *Disagreement* (Oxford: Oxford University Press), pp. 111-74.
- Kyburg, H. (1961), *Probability and the Logic of Rational Belief* (Middletown: Wesleyan University Press).
- Makinson, D.C. (1965), 'The Paradox of the Preface', *Analysis* 25, pp. 205-7.
- van Inwagen, P. (2010), 'We're Right. They're Wrong', in R. Feldman and T.A. Warfield (eds.), *Disagreement* (Oxford: Oxford University Press), pp. 10-28.

Weisberg, J. (2010), 'Bootstrapping in General', *Philosophy and Phenomenological Research* 81(3), pp. 525-48.

White, R. (2005), 'Epistemic Permissiveness', *Philosophical Perspectives* 19, pp. 445-59.