

UNIQUENESS AND LOGICAL DISAGREEMENT

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ABSTRACT: This paper discusses the *uniqueness thesis*, a core thesis in the epistemology of disagreement. After presenting uniqueness and clarifying relevant terms, a novel counterexample to the thesis will be introduced. This counterexample involves *logical disagreement*. Several objections to the counterexample are then considered, and it is argued that the best responses to the counterexample all undermine the initial motivation for uniqueness.

KEYWORDS: the uniqueness thesis, rational uniqueness, logical disagreement, propositional justification

1. Introduction

The uniqueness thesis (henceforth denoted 'UT') concerns a relation between a body of evidence, a doxastic attitude and a proposition. Jonathan Matheson, a proponent of the thesis, defines UT as follows:

(UT) For any body of evidence E and proposition P, E justifies at most one doxastic attitude toward P.¹

UT features frequently in the epistemology literature² and is motivated by arguments concerning peer disagreement—if two epistemic peers³ disagree about a

¹ Quote from Jonathan Matheson, "The Case for Rational Uniqueness," *Logos & Episteme* II, 3 (2011): 360.

² See for example Thomas Kelly, "Evidence Can Be Permissive," in *Contemporary Debates in Epistemology*, eds. Matthias Steup, John Turri, and Ernest Sosa (Wiley-Blackwell, 2013), 298-312, Roger White, "Evidence Cannot Be Permissive," in *Contemporary Debates in Epistemology*, eds. Steup, Turri, and Sosa, 312-323, Luis Rosa, "Justification and the Uniqueness Thesis," *Logos & Episteme* III, 4 (2012): 571-577, Jonathan Matheson, "The Case for Rational Uniqueness," *Logos & Episteme* II, 3 (2011): 359-373, Earl Conee, "Rational Disagreement Defended," in *Disagreement*, eds. Richard Feldman and Ted A. Warfield (Oxford University Press, 2010), 69-90.

³ Roughly put, two agents in disagreement are epistemic peers when neither side is epistemically superior with respect to the proposition at hand, i.e., when the two are similar enough in all relevant factors such as evidence, track record, time constraints etc.

proposition P, is it then possible that they are both justified in their doxastic attitudes toward P? If UT is true, then the answer is negative.

Importantly, there are in fact several non-equivalent definitions of UT in the literature.⁴ Thomas Kelly, for example, favors a formulation of UT saying that there is *exactly one* justified doxastic attitude given a body of evidence,⁵ while Matheson prefers *at most one*, as we have just seen. Matheson notes that in most cases there will be exactly one justified doxastic attitude given a body of evidence, but in some situations, there may be no justified doxastic attitude toward P whatsoever. This can arguably happen when one is not able to, or when it is simply not possible to, comprehend the proposition at hand.⁶ If one takes comprehension of P to be a necessary condition for the existence of a justified doxastic attitude toward P, then it seems most reasonable to use Matheson's weaker definition of UT. Thus, this is what we will assume here. Further, we will adopt Matheson's assumption that the term 'doxastic attitude' can only refer to the following three possibilities: *belief that P*, *disbelief that P* and *suspension of judgement with respect to P*, i.e., the possibility space of attitudes that one can take toward a proposition P is exhausted by these three attitudes.⁷ Now, UT puts a constraint on the total number of doxastic attitudes that a body of evidence can justify toward a proposition. According to UT any body of evidence E justifies at most one doxastic attitude toward P. In other words, according to UT, there exists no body of evidence E such that E justifies both belief and disbelief toward P. Similarly, of course, the thesis implies that there exists no E such that E justifies both a (dis)belief in P and suspension of judgement with respect to P. In the paper "The Case for Rational Uniqueness," Matheson makes two further clarifying remarks about UT:

(UT) [...] makes no reference to individuals or times since (UT) claims (in part) that who possesses the body of evidence, as well as when it is possessed, makes no difference regarding which doxastic attitude is justified (if any) toward any particular proposition by that body of evidence.⁸

(UT) concerns propositional justification, rather than doxastic justification. That is, the kind of justification relevant to (UT) is solely a relation between a body of

⁴ This is noted by Matheson, "The Case for Rational Uniqueness," 360-361.

⁵ Thomas Kelly, "Peer Disagreement and Higher-Order Evidence," in *Disagreement*, eds. Feldman and Warfield, 119.

⁶ See Richard Feldman, "Epistemological Puzzles About Disagreement," in *Epistemology Futures*, ed. S. Hetherington (Oxford University Press, 2006) for a motivation of this view.

⁷ This assumption is common in the contemporary literature, see for example Rosa, "Justification and the Uniqueness Thesis," Matheson, "The Case for Rational Uniqueness," Kelly, "Peer Disagreement and Higher-Order Evidence."

⁸ Quote from Matheson, "The Case for Rational Uniqueness," 360.

evidence, a doxastic attitude, and a proposition. How individuals have come to have the doxastic attitudes they have toward the proposition in question will not be relevant to our discussion. Further, individuals can be propositionally justified in adopting attitudes toward propositions which they psychologically cannot adopt [...] Importantly, it is not a necessary condition for being justified in believing p that one be able to demonstrate that one is justified in believing.⁹

The first of these quotes states that according to UT a given body of evidence E justifies exactly the same doxastic attitude (if any) towards P , no matter the subject that assesses E and at what time this is done. In the second quote, Matheson distinguishes between *propositional* and *doxastic* justification, where the former is a relation between a body of evidence, a doxastic attitude and a proposition, the latter concerns *how* a given individual came to adopt a specific doxastic attitude towards a proposition, i.e., doxastic justification is concerned with one's reasons for actually adopting a certain attitude toward P . Doxastic justification presumes that a given individual has a certain attitude toward P , and the question is then whether or not this individual has sufficient reason to be justified in having that attitude. When it comes to propositional justification, on the other hand, it is irrelevant whether any individual is ever concerned with P ; the crux of propositional justification is that a justification-relation between a body of evidence, a doxastic attitude and a proposition holds, not whether any individual realizes this. Understood in this way propositional justification refers to an external relation, and an individual can accordingly be propositionally justified in a doxastic attitude towards P even though this individual has not adopted the relevant attitude psychologically. And hence, it is not necessary for a subject to be able to demonstrate or defend this given attitude towards P in order for it to be propositionally justified. Matheson tells us that UT is a thesis concerning propositional justification rather than doxastic justification.

2. Clarifications

Before we move on to consider the announced counterexample to UT, let us pause to further specify what is meant by 'justification' and 'evidence' in the rest of the text. We will deliberately stay on a high level of generality in order not to exclude too many accounts of justification and evidence from the later discussions in sections 3 and 4.

When using the term 'justification,' this use is naturally restricted to the epistemic domain, we are not concerned with any practical issues whatsoever. So, in other words, our concern is with the justification of doxastic attitudes towards

⁹ Quote from Matheson, "The Case for Rational Uniqueness," 360-361.

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propositions. This kind of justification is regulated by epistemic norms, i.e., truth-conducive norms, and as indicated in section 1, we are concerned with *propositional* justification, rather than doxastic justification.¹⁰

Our use of the term ‘evidence’ assumes that we can all agree that evidence can stem from many different sources like direct visual perception, testimony from individuals or media, scientific experiments etc. The only constraints we will force on our understanding of evidence from the outset are: (1) evidence must be propositional (and thus truth-apt), (2) any piece of evidence must be true, (3) any piece of evidence must (at least in principle) be accessible to human beings, and (4) evidence should be supportive of doxastic attitudes, where *support* may be interpreted probabilistically, but does not have to be.

(2) is arguably the most controversial among these four constraints. However, for our purposes there is a very good reason for including this factivity condition. To see this, suppose that one could have false (misleading) pieces of evidence in one’s body of evidence E. Then, given the further assumption that false evidence can support anything, we could easily have a situation where a true bit of evidence e_1 supports the belief that P, while a false bit of evidence e_2 supports the belief that not-P. This would in effect trivialize the debate about UT; on this account of evidence UT is obviously false.¹¹ Hence, we should either accept that evidence is factive or we should deny that false evidence can support anything. For the rest of the paper we will take the first option.

3. The Argument from Logical Disagreement

Consider now the following case against UT:

Logical Disagreement. Two logicians, S1 and S2, are walking into an empty auditorium where they find a deduction written on a blackboard. S1 and S2 are simultaneously looking at the board. As it happens, S1 is a classical logician, while S2 is an intuitionist. Now, the deduction consists in a finite number of steps, so all steps of the deduction except for the conclusion C will serve as a common body of

¹⁰ The literature on epistemic justification is vast, but prominent examples of theories of justification can be found in: Richard Feldman and Earl Conee, *Evidentialism* (Oxford University Press, 2004), Timothy Williamson, *Knowledge and Its Limits* (Oxford University Press, 2000), Ernest Sosa, *Knowledge in Perspective* (Cambridge University Press, 1991), William Alston, *Epistemic Justification* (Cornell University Press, 1989), Alvin Goldman, *Epistemology and Cognition* (Harvard University Press, 1986), Laurence Bonjour, *The Structure of Empirical Knowledge* (Harvard University Press, 1985), Richard Feldman and Earl Conee, “Evidentialism,” *Philosophical Studies* 48 (1985): 15-34, Alvin Goldman, “What Is Justified Belief?,” in *Justification and Knowledge*, ed. G. Pappas (Springer, 1979), 1-23.

¹¹ Thanks to Francesco Berto for pressing this point about false (misleading) evidence.

evidence E, i.e., a set of propositions that are represented in a language that both logicians fully comprehend. The central question is then whether E entails C. Suppose that C on line n is the result of applying DNE (double negation elimination) to not-not-C on line $n - 1$.¹² As S₁ accepts classical logic, she also accepts the inference from not-not-C to C, while S₂, given her intuitionist convictions, denies DNE as a rule of inference and thus denies that C comes out supported by E.

In this case we have a situation in which two agents possess exactly (!) the same evidence (the propositions represented by lines $n - 1$ on the blackboard), but they are justified in diverging doxastic attitudes towards the relevant proposition in question, namely C. We see that E justifies S₁ in her belief that P, while E justifies (at least) suspension of judgement regarding P for S₂ (P is not supported by E). Thus, the case is a clear counterexample to UT as the number of attitudes that E justifies exceeds one. Of course, as the reader will have noticed by now, the case is concerned with a special type of evidence, i.e., evidence of the completely formal type that we find in pure logic and mathematics. This means that the counterexample is narrow in the sense that it does not indicate the existence of counterexamples to UT among other types of evidence.¹³ However, this will be completely irrelevant as long as we regard UT as a general epistemic principle. If

¹² Using standard notation DNE is an inference from $\Gamma \vdash \neg\neg\phi$ to $\Gamma \vdash \phi$, where ‘ Γ ’ denotes a set of sentences in a given language, ‘ \vdash ’ denotes deducibility from left to right and ‘ ϕ ’ picks out a single sentence of the language. Some readers may point out that it is underspecified in the case above whether S₁ and S₂ disagree over an *instance* or a *schema* of DNE. This is true, but it will not make a significant difference to the main argument of the paper.

¹³ However, some epistemologists have suggested that there are counterexamples to UT among other types of evidence. Consider, for example, a case where S₁ and S₂ discuss which football team will win the national league this season. Suppose that their discussion takes place the day before the final match day, and at this point of the season only two teams can win; either team A or team B. Suppose further that the only evidence available to the subjects is a certain newspaper statistic, which shows the scores of the season so far. According to this statistic, team A is in front of team B by the smallest possible margin. Now, S₁ is convinced that team A will take the championship due to the statistical support for this (they are ahead at this point). However, S₂ suspends judgement about who will be the champions as team A leads with the smallest possible margin and it is still possible for team B to make it. In such a case the proponent of UT should say that at most one of the subjects’ doxastic attitudes is justified, but one might reasonably argue that this is wrong. In such borderline cases it seems that at least two out of three doxastic attitudes could be justified. If this is right, we have a counterexample to UT using another type of evidence, i.e., empirical data. Find similar borderline cases in Kelly, “Evidence Can Be Permissive,” 299-300.

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the case holds, we will have the necessary and sufficient counterexample needed to reject UT.

4. Objections and Responses

As the case presented above will be very hard to accept for many readers (for various reasons), the rest of the paper aims to motivate the argument from logical disagreement. The strategy here is simple. While discussing various objections to **Logical Disagreement**, it will become clear that the UT-proponent can only avoid the counterexample by undermining the initial motivation behind UT, i.e., explaining away the counterexample to UT will lead to an indirect defeat of the thesis. In the following, five objections to **Logical Disagreement** will be scrutinized (subsections 4.1-4.5). The first two will simply be rejected, the third will be found underdeveloped, and while the remaining two can actually explain away the counterexample to UT, this can only be done by undermining the motivation behind the principle.

4.1 Evidence Is Contingent

Objection 1. Even though the evidence E present in **Logical Disagreement** satisfies our four rudimentary constraints on evidence (cf. section 2) as E is propositional, factive, accessible and supportive, E is still not a genuine body of evidence. This is because only contingent propositions can be evidence. Thus, UT is not even applicable in **Logical Disagreement**.

First of all, there is no principle reason why necessary propositions such as the ones found in pure mathematics and logic cannot be counted as evidence. Propositions of logic and mathematics can clearly serve the supportive role of evidence very well, i.e., such propositions speak in favor of certain hypotheses in the strongest possible way (by entailment). Hence, if any proposition is able to justify a belief, it seems that pure logical or mathematical propositions are ideal candidates. Habit may dictate, perhaps leading back to acceptance of Hume's Fork, that some of us cannot see the point in taking purely formal premises of deductive arguments as evidence, but without further qualification this is obviously not a good argument for accepting such an exclusion in philosophical or scientific work. Moreover, accepting **Objection 1** leads to absurd consequences when we hold other plausible epistemic principles to be true. Take for example Timothy Williamson's principle $E = K$, i.e., evidence equals knowledge.¹⁴ If we accept that our evidence is coextensive with our knowledge, and that **Objection 1** holds, it directly follows

¹⁴ Williamson, *Knowledge and Its Limits*, chapter 9.

that we cannot have pure mathematical or logical knowledge. To deny that we can and do have such knowledge would not only be absurd, it would be intellectual suicide.

4.2 Communication Breakdown

Objection 2. The case **Logical Disagreement** misrepresents the interaction between classical logicians and intuitionists. Where the classical logician works with a philosophical presupposition of a world of mathematical objects independent of the thinking subject (objects that obey the laws of classical logic and can stand in set-theoretic relations), this is radically different from the intuitionists who advocate for constructive methods and take mathematics to be about mental constructions. As a result of this schism, the two logicians in the proposed case would run into an insurmountable communication breakdown, i.e., the DNE-inference acceptable to the classical logician would not even be understandable to the intuitionist – it would be nonsense. To quote Brouwer: *“Let us now consider the concept: ‘denumerably infinite ordinal number.’ From the fact that this concept has a clear and well-defined meaning for both formalist and intuitionist, the former infers the right to create the ‘set of all denumerably infinite ordinal numbers,’ the power of which he calls aleph-one, a right not recognized by the intuitionist.”*¹⁵ Something similar to what Brouwer describes in the interaction between diverse logical traditions in this quote occurs in **Logical Disagreement** with respect to DNE, i.e., the intuitionist does simply not comprehend the final step of the deduction on the blackboard. Thus, suspension of judgement is not a justified doxastic attitude for the intuitionist in this case; the supposed logical connection between E and C is gibberish to her. Rather, **Logical Disagreement** represents the kind of case where there is no justified doxastic attitude for the intuitionist to have. Hence, UT would be saved (at least the *at most one doxastic attitude*-version of the thesis). The case allows only one justified attitude, namely the attitude of the classical logician.

This objection overstates the divide between the classical and intuitionist traditions. Comprehension of classical logic is often presupposed in discussions of non-classical logical systems, e.g., as a meta-theory. Indeed, it is stipulated in **Logical Disagreement** that the deduction found on the blackboard is written in a language that both logicians fully comprehend. We do not need more than noticing and appreciating this very stipulation in order to slide off the objection. Further, we can strengthen this reply by noticing that it is not the case that when there is logical disagreement, one party has automatically misunderstood (or lacks) some concept. The disagreement may just be the result of one side having false

¹⁵ Quote from Luitzen Egbertus Jan Brouwer, “Intuitionism and Formalism,” *Bulletin of the American Mathematical Society* 20 (1913): 91.

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beliefs. So, in **Logical Disagreement**, it need not be the case that the intuitionist (supposing that she got it wrong) lacks some concept about how negation works, or has misunderstood or changed its meaning. Negation means whatever it means, also in the intuitionist's mouth, she just has false beliefs about that meaning.¹⁶

4.3 Logical Monism

Now, let us turn to the more challenging objections.

Objection 3. The evidence does in fact justify exactly one doxastic attitude in **Logical Disagreement**, it is just that we do not know which attitude it is. For we do not know which logic is the "correct" model of logical consequence, but surely there is only one correct logic in the end. Thus, UT survives the case even though the underlying logical disagreement leaves us in the dark with respect to what doxastic attitude is justified.

This objection begs the question against logical pluralists (something like Beall & Restall-style pluralists), i.e., the view that there is more than one true logic; there is not always a single answer to the question whether a proposition P logically follows from a set of propositions (premises), in some cases there are more than one correct answer. A rough motivation for this kind of pluralism is that classical logic(s), relevance logic(s), intuitionistic logic(s) etc., all have a rightful place in formalizing and restraining logical inference as various important aspects of our pre-theoretic notion of logical consequence can be explicated by each of these approaches to logic. Clearly, begging the question against the pluralist in this way merely relocates the tension from an infight between UT-supporters and -deniers to a clash between logical monism and pluralism, so it seems like a dissatisfying option. Of course, some UT-supporters might be happy to say that logical pluralism is false, and thus they will have a way to save their principle, but this strategy should be supported by strong independent reasons. It will not be enough for the UT-supporter to accept logical monism because it seems like the default position amongst epistemologists. Hence, **Objection 3** is underdeveloped as it stands, and UT-supporters opting for this way out have further work to do. Developing the back and forth between logical monists and pluralists any further here would take us beyond the scope of this paper, but find a few useful references in the footnote below.¹⁷

¹⁶ A similar point is made by Williamson; see Timothy Williamson, *The Philosophy of Philosophy* (Oxford University Press, 2007), chapter 4.

¹⁷ For more on logical pluralism in the Beall & Restall-style, see e.g., JC Beall and Greg Restall, *Logical Pluralism* (Oxford University Press, 2005), JC Beall and Greg Restall, "Logical Pluralism," *Australasian Journal of Philosophy* 78, 4 (2000): 475–493. Other kinds of logical pluralism can be

4.4 Splitting the Evidence

Objection 4. As S1 and S2 belong to two opposing traditions in logic and thus do not accept the same rules of inference, it is actually not the case that they possess the same evidence in the situation described. Surely, considered as a set of propositions, the evidence is the same for both subjects, but due to the subject's diverse logical backgrounds the evidence splits in two. The case really presents both E and E*, where the acceptable inference rules of classical logic are tacitly accepted to induce E and the rules of intuitionist logic are tacitly accepted to induce E*. No purely formal body of evidence (or set of propositions) supports anything pre-theoretically. Pre-inquiry acceptance of a logical system (or another kind of systematic method) is necessary to even generate evidence. Pre-theoretically, the question of which doxastic attitude is supported by a formal body of evidence is empty. Hence, **Logical Disagreement** is not a counterexample to UT since each body of evidence only justifies one doxastic attitude.

Prima facie, this objection seems to have something going for it. Indeed, it might save UT seen as a general epistemic principle since at most one doxastic attitude can be justified per body of evidence. However, at the same time it undermines the initial appeal of UT. For if we need a prior systematic method in order to even generate formal evidence, we get a kind of evidential relativism. To illustrate, take an arbitrary set of purely formal propositions. This set does not constitute a unique body of evidence, as would be natural to suppose, instead it constitutes as many different bodies of evidence as there are acceptable systematic methods of inquiry. This moves our discussion away from evidence to a discussion of acceptable methods, but this discussion should not be relevant to UT. UT should not be true only relative to preferred methodology. For let us remind ourselves of how strong a thesis UT really is: it concerns all bodies of evidence, no matter what subject possesses it and no matter the time and circumstances. The crucial point is that UT is supposed to motivate a certain response to peer disagreement, i.e., at most one peer can be justified in such disagreements. But if formal evidence is relativized to method, the scope of UT is reduced drastically. You can now only share formal evidence with those from your own methodological equivalence class, and there can be as many of those classes as there are acceptable methods. This kind of relativism is clearly not desirable for a UT-proponent, and thus saving UT using

found in: Steward Shapiro, *Vagueness in Context* (Oxford University Press, 2006), Rudolf Carnap, *The Logical Syntax of Language* (Open Court, 1937/2002). For an overview, see Gillian Russell, "Logical Pluralism," *The Stanford Encyclopedia of Philosophy* (Summer 2019 Edition), ed. Edward N. Zalta, URL = <https://plato.stanford.edu/archives/sum2019/entries/logical-pluralism/>.

Objection 4 turns out to be a Pyrrhic victory.¹⁸ However, some might hesitate to admit that **Objection 4** leads to evidential relativism regarding formal evidence, for it may be objected that E and E* do not have the same epistemic status. There could be good and purely epistemic reasons for favoring E over E* (or *vice versa*) the reply goes. As noted above, E is the body of evidence induced by the tacit acceptance of classical logic, while E* is the result of tacitly accepting intuitionist logic, but surely logicians do not just accept any old system of logic, they have epistemic reasons for accepting whatever system they favor. Thus, S₁'s *total* evidence pool may very well include evidence for accepting DNE, law of the excluded middle etc., which the intuitionist lacks. Similarly, S₂'s *total* evidence pool may well include evidence for denying DNE, law of the excluded middle etc., which the classical logician does not have in her possession. Further, S₁'s reasons may be better than S₂'s ditto (or *vice versa*).

Although this worry is legitimate, it will not save UT. First, it is underspecified in the literature whether UT is meant to apply to the *total* bodies of evidence in this sense, i.e., including pieces of evidence supporting one's methods used to generate evidence. There are hints about the importance of evidence for evidence-generating methods in the literature on *deep disagreement*,¹⁹ but usually such evidence is taken as background information, and thus not as included in whatever body of evidence is under consideration in standard (deep) disagreement cases. Thus, it is not clear what UT-proponents would say about cases involving such *total* bodies of evidence. Further, one could easily rewrite **Logical Disagreement** stipulating that the two logicians were (known) epistemic peers.

¹⁸ Other epistemologists have suggested that one way in which uniqueness might fail is if there is a plurality of methods (in a broad sense) which one could reasonably use to generate evidence. Accordingly, the counterexample **Logical Disagreement** presented here and my discussion about formal evidence being relativized to acceptable methods might reasonably be subsumed under a broader style of argument against uniqueness, namely that UT fails because evidence (of various types) is relative to acceptable methods. For further discussion of this general style of argument see Greta Turnbull, "Why dinosaur paleobiology shows us that reasonable disagreement is possible," unpublished manuscript, Steven Hales, "Motivations for Relativism as a Solution to Disagreements," *Philosophy* 89, 1 (2014): 63-82, Alvin Goldman, "Epistemic Relativism and Reasonable Disagreement," in *Disagreement*, eds. Feldman and Warfield, 187-215.

¹⁹ For discussions of deep disagreement, see Klemens Kappel, "Higher Order Evidence and Deep Disagreement," *Topoi* (2018): 1-12, Michael Lynch, "After the Spade Turns: Disagreement, First Principles and Epistemic Contractarianism," *International Journal for the Study of Skepticism* (6) (2016): 248-259, Klemens Kappel, "The Problem of Deep Disagreement," *Discipline Filosofiche* 22 (2) (2012): 7-25, Michael Lynch, "Epistemic Circularity and Epistemic Incommensurability," in *Social Epistemology*, eds. Adrian Haddock, Alan Millar, and Duncan Pritchard (Oxford University Press 2010), 262-277.

Then, insofar as evidential symmetry is necessary for peerhood, this would exclude any evidence from the case besides the common evidence. Of course, one could then say that if S_1 is a classical logician and S_2 an intuitionist, they cannot be epistemic peers, but in that case, we are back to square one; formal evidence becomes relativized to your own methodological equivalence class and relativism looms.

4.5 Individualistic Versus Social Epistemology

Objection 5. UT is most plausibly defended as an intra-personal thesis, but **Logical Disagreement** is an inter-personal case. Thomas Kelly distinguishes between intra-personal and inter-personal versions of UT.

UT_{Intra}: Given that my evidence is E, there is some doxastic attitude D that is the only fully rational doxastic attitude for me to take towards proposition p[...].²⁰

UT_{Inter}: Given evidence E, there is some doxastic attitude D that is the only fully rational doxastic attitude for anyone to take towards proposition p[...].²¹

UT_{Intra} holds as a general epistemic principle.

This objection saves UT as a general epistemic principle in the intra-personal domain, but as should be clear, it completely undermines the core motivation for the thesis, which is social. Instead of relativizing to methods as in **Objection 4**, E is now relativized to subjects, and an even worse kind of relativism is unavoidable.

I agree that **UT_{Intra}** is true. Take a perceptual case. If S clearly sees that there is a computer in front of her on the table and this visual perception constitutes her evidence, then under normal circumstances there will be at most one justified doxastic attitude for her to adopt towards the proposition *<there is a computer on the table>*, i.e., S is justified in believing the proposition to be true and nothing besides this. Likewise, **UT_{Intra}** is true in logical cases in so far as we assume that the subject in play has accepted a certain logical system prior to inquiry. This blocks cases where **Logical Disagreement** is reformulated as a single person-case with an eclectic logician who is neither dogmatic regarding the classical nor the intuitionist tradition in logic, but is fully competent in both traditions anyway. Given our assumption, this logician cannot be intra-personally justified in more than one doxastic attitude towards P, e.g., the eclectic logician cannot be justified in a belief that P as well as a suspension of judgement with

²⁰ Quote from Kelly, "Evidence Can Be Permissive," 307. Note that even though Kelly uses the term 'rational' instead of 'justified' in this quote, it will not make any substantial difference for our purposes.

²¹ See footnote 20.

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respect to P based on the same body of evidence. However, as mentioned above, admitting that only **UT_{Intra}** is true comes with an unbearable cost for the UT-proponent. For with the embrace of this view, UT is no longer relevant to the peer disagreement debate which it was supposed to be central to. As **UT_{Intra}** is compatible with multiple doxastic attitudes being justified in cases of peer disagreement, the initial motivation behind UT is now completely lost. Thus, UT-proponents should not accept **Objection 5** as it indirectly undermines UT.

5. Concluding Remarks

This paper has introduced a new counterexample to UT which involves logical disagreement. To legitimize this example and strengthen the case for it, I have shown that five different objections trying to save UT from **Logical Disagreement** fails. Two of the five objections were simply fended off, one needed further development to pose any real threat, while explaining away the counterexample with either one of the remaining two options resulted in an unbearable indirect defeat of the thesis. Hence, in the absence of successful objections to **Logical Disagreement**, I recommend that we hesitate in accepting UT as a general epistemic principle.²²

²² Thanks to Francesco Berto, Jessica Brown and Klemens Kappel for helpful comments on earlier versions of the paper.