# Non-Normative Logical Pluralism and the Revenge of the Normativity Objection

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#### Abstract

Logical pluralism is the view that there is more than one correct logic. Most logical pluralists think that logic is normative in the sense that you make a mistake if you accept the premisses of a valid argument but reject its conclusion. Some authors have argued that this combination is self-undermining: Suppose that  $\mathcal{L}_1$  and  $\mathcal{L}_2$  are correct logics that coincide except for the argument from  $\Gamma$  to  $\phi$ , which is valid in  $\mathcal{L}_1$  but invalid in  $\mathcal{L}_2$ . If you accept all sentences in  $\Gamma$ , then, by normativity, you make a mistake if you reject  $\phi$ . In order to avoid mistakes, you should accept  $\phi$  or suspend judgment about  $\phi$ . Both options are problematic for pluralism. Can pluralists avoid this worry by rejecting the normativity of logic? I argue that they cannot. All else being equal, the argument goes through even if logic is not normative.

Keywords: Logical Pluralism; Normativity Objection; Collapse Problem; Normativity

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#### 1 Logical Pluralism and the Normativity Constraint

If the claim that there is more than one correct logic is the unifying feature of logical pluralism, then there are quite a number of different pluralistic views available.<sup>1</sup> In this paper, I mostly discuss Jc Beall and Greg Restall's (2006) pluralism and some variations of it, but the gist of the arguments presented here may apply to a number of other versions of logical pluralism as well (Stei 2017). Beall and Restall think that there is more than one admissible precisification of the concept of logical consequence. At the core of their pluralism is a conception of validity as necessary truth-preservation. It is based on the Tarskian model-theoretic view, according to which a conclusion follows logically from the premises iff every model of the premises is also a model of the conclusion (Tarski 1936). Beall and Restall generalize that thought by replacing the 'models' in Tarski's definition with 'cases', resulting in their 'Generalized Tarski Thesis' (GTT) (Beall & Restall 2006: 29):

GTT An argument is valid<sub>x</sub> if and only if, in every  $case_x$  in which the premises are true, so is the conclusion.

A case is any entity in which claims may be true (see Beall & Restall 2006: 89), so Tarskian models remain as a special case of GTT. Crucially, however, different consequence relations may emerge depending on the type of cases under consideration. In combination with the acceptance of more than one type of case, GTT yields logical pluralism. As far as Beall and Restall are concerned, a number of types of cases qualify as admissible instances of GTT. Tarskian models yield classical logic, situations yield relevant logic, and stages yield intuitionistic logic.

In principle, many other types of cases would satisfy GTT as well. One might, for

<sup>&</sup>lt;sup>1</sup>For instance, Beall & Restall 2006; Caret 2017; DeVidi 2011; Field 2009; Haack 1978; Hjortland 2013; Kouri Kissel 2017; Russell 2008; Shapiro 2014; Terrés Villalonga 2017 all defend more or less independent versions of the view.

instance, restrict the set of cases to only the actual case. This would yield a notion of validity<sub>@</sub> according to which only arguments with an actually true conclusion or at least one actually false premiss would count as valid<sub>@</sub>. To most, this outcome would not be very attractive. Beall and Restall avoid this and other unorthodox results by imposing additional constraints on consequence relations. In order for a consequence relation to count as an admissible instance of GTT, its judgments about consequence need to be *necessary, normative,* and *formal* (cf. Beall & Restall 2006: 35). We can ignore the *necessity* and the *formality* constraints for the purposes of this paper, but let us have a closer look at *normativity*.

Beall and Restall think that 'if an argument is valid, then you somehow go *wrong* if you accept the premises but reject the conclusion' (Beall & Restall 2006: 16). There are a number of ways to interpret this, but I think Caret (2017: 748) is basically right to read it as the following 'wide scope–ought' principle with 'negative polarity':<sup>2</sup>

wo- If  $\Gamma \vDash \phi$ , then for all subjects  $\sigma$ :  $\sigma$  ought to see to it that  $\sigma$  does not both accept all sentences in  $\Gamma$  and reject  $\phi$ .<sup>3</sup>

To be sure, Beall and Restall do not think that the normativity of logical consequence is fundamental in the sense that it can never be rational to violate the norm. They cite epistemic dilemmas like the preface paradox as a case in point. Still, '[t]he normativity of

<sup>&</sup>lt;sup>2</sup>This terminology as well as the denomination 'wo-' is taken from MacFarlane's unpublished but widely cited manuscript (MacFarlane 2004). MacFarlane uses *believe* and *disbelieve* instead of *accept* and *reject*, but this slight deviation is irrelevant for the purposes of this paper.

<sup>&</sup>lt;sup>3</sup>As an anonymous referee pointed out, one might wonder which turnstile (' $\models$ ') is at issue in wo-, given that Beall and Restall insist that different specifications of cases in GTT result in different consequence relations. Taking Beall and Restall's definition (Beall & Restall 2006: 35) into account, the answer has to be this: A *logic* in Beall and Restall's sense (i.e. an admissible instance of GTT) has to meet the normativity constraint. So, any logic  $\mathcal{L}$  comes with the provision that a subject that accepts the premisses of an argument valid-in- $\mathcal{L}$  but rejects its conclusion 'goes wrong'. In other words, each admissible instance of GTT comes with its own variant of wo- (or whatever principle one thinks best represents Beall and Restall's constraint) resulting in wo-c, wo-i, and wo-r (where the subscripts represent classical logic, intuitionistic logic, and relevant logic). If you accept  $\neg \neg P$  but reject P, you violate wo-c and wo-r, but not wo-i as the argument from  $\neg \neg P$  to P is classically and relevantly valid but intuitionistically invalid. If you accept  $P \land Q$  but reject P, you violate the normativity constraint of all admissible instances of GTT.

logical consequence remains, even if in this circumstance it is trumped by other norms' (Beall & Restall 2006: 17).

Further remarks on normativity are rather sparse in the book but these are all the assumptions needed to get the 'normativity objection' (Keefe 2014; Read 2006; Priest 2006)—also known as the 'collapse problem' (Caret 2017)—off the ground. This objection was originally developed as a criticism of Beall-Restall pluralism, but I argued elsewhere (Stei 2017) that it applies to all versions of logical pluralism that assume (i) that there are at least two correct logical systems characterized in terms of different consequence relations, (ii) that logical consequence is global in scope, (iii) that there are arguments (containing only vocabulary common to both systems), such that one system licenses the move from the premisses to the conclusion while the other doesn't, and (iv) that logical consequence is normative.<sup>4</sup> The claim I wish to defend here is that, given certain assumptions, the normativity objection prevails even if the normativity condition is not met. If correct, my arguments should apply not only to Beall and Restall's view but to all variants of logical pluralism that commit to the other three conditions (e.g. Blake-Turner and Russell's (2018) telic logical pluralism, Haack's (1978) global logical pluralism, Hjortland's (2013) intra-theoretical pluralism or Restall's (2014) proof-theoretic pluralism).<sup>5</sup>

<sup>&</sup>lt;sup>4</sup>Barrio *et al.* 2018 provide useful qualifications on those conditions, but those are not pertinent to the purposes of this paper.

<sup>&</sup>lt;sup>5</sup>There are, of course, other versions of logical pluralism that do without at least some of those conditions. A prominent variant is defended by authors like DeVidi (2011), Kouri Kissel (2017), Pedersen (2014), and Shapiro (2014), who reject that logical consequence is global in scope, arguing instead for the relativity of different systems to different purposes, different linguistic frameworks, different domains, or different mathematical structures, respectively. It is not obvious that these views are threatened by the normativity objection. In fact, Kouri Kissel & Shapiro (2017) argue explicitly that rejecting the global-scope constraint allows for logic to be normative while at the same time avoiding the objection. This is an interesting strategy and it deserves a proper discussion elsewhere. My focus here is on a different reaction to the normativity objection, namely on the rejection of the normativity constraint. Thanks to an anonymous referee for pressing me on this point.

#### 2 The Normativity Objection

The worry about the conflict between the plurality of logics and the normativity constraint was first raised by Graham Priest (2001).<sup>6</sup> The basic idea is as follows: Suppose that there is some situation s about which a subject  $\sigma$  is reasoning and that s is in different classes of situations, K<sub>1</sub> and K<sub>2</sub>. Suppose, further, that there is some argument from  $\Gamma$  to  $\phi$  that is valid in K<sub>1</sub> but not K<sub>2</sub> and that  $\sigma$  knows all sentences in  $\Gamma$  hold in s. Should  $\sigma$  accept  $\phi$  or not?

Assuming, as a first step, that  $\mathcal{L}_1$  and  $\mathcal{L}_2$  are the notions of validity appropriate for  $K_1$ and  $K_2$ , respectively,  $\mathcal{L}_1$  tells us that  $\phi$  is true—and it is, given that we know all sentences in  $\Gamma$  and the  $\mathcal{L}_1$ -argument preserves truth.  $\mathcal{L}_2$ , on the other hand, does not tell us that  $\phi$  is false, it just fails to tell us that  $\phi$  is true. So, in situation s,  $\mathcal{L}_1$  and  $\mathcal{L}_2$  are not on par. The former answers a crucial question which the latter does not (see also Caret 2017; Keefe 2014; Read 2006).

Having established that  $\phi$  is true, should  $\sigma$  accept it? Assume, in line with Beall and Restall, that logic is normative in the sense of wo- and that  $\mathcal{L}_1$  and  $\mathcal{L}_2$  are both admissible instances of GTT. Suppose, as before, that  $\Gamma \vDash_1 \phi$  but that  $\Gamma \nvDash_2 \phi$ . Now, according to the appropriate version of wo-,  $\mathcal{L}_1$  normatively constrains our beliefs in the sense that we should see to it that we do not both accept  $\Gamma$  and reject  $\phi$ .  $\mathcal{L}_2$ , on the other hand, is normatively silent on the argument from  $\Gamma$  to  $\phi$ . The argument is not valid-in- $\mathcal{L}_2$ , so the antecedent condition of the relevant instance of wo- is not met. There is no normative constraint imposed by  $\mathcal{L}_2$  on the argument from  $\Gamma$  to  $\phi$ , but we do violate an  $\mathcal{L}_1$ -constraint if we accept  $\Gamma$  and reject  $\phi$ . Thus, given the current assumptions, not rejecting  $\phi$  is the only way not to violate the normativity constraint.

I take it that there are two ways to not-reject- $\phi$ . One is to accept  $\phi$ , the other is to suspend judgement about  $\phi$ . In the limiting case in which  $\mathcal{L}_1$  and  $\mathcal{L}_2$  agree on all

<sup>&</sup>lt;sup>6</sup>A version of this argument can also be found in Priest 2006. For more thoroughgoing discussions, see Caret 2017; Keefe 2014; Read 2006; Stei 2017.

arguments except on the one from  $\Gamma$  to  $\phi$ , the option of accepting  $\phi$  basically results in  $\mathcal{L}_1$  as the dominant logic. If we accept the results of  $\mathcal{L}_1$  in all cases of conflict, this clearly undermines pluralism about  $\mathcal{L}_1$  and  $\mathcal{L}_2$  as a viable alternative to monism about  $\mathcal{L}_1$ . The result generalizes. Supposing the strategy in all cases of conflict between logics is to consistently accept a conclusion like  $\phi$  in situations structurally similar to *s*, Beall-Restall pluralism collapses into classical logic. This is because all logics Beall and Restall take to be admissible are classical or sub-classical. So in any case in which we accept the premisses of a classically valid argument that is invalid according to some sub-classical logic, the current strategy tells us to accept the conclusion. The stronger (classical) logic normatively trumps the weaker (sub-classical) logic Beall and Restall endorse.

What about suspension of judgement? It is safe to assume that in the case at hand  $\sigma$  is not merely unaware of  $\phi$ . After all, it is part of the setup of the scenario that  $\sigma$  is deliberating about whether or not to accept  $\phi$ . The suspension of judgement in the cases at issue is not due to mere ignorance of the propositions in question. Is there a plausible reason for  $\sigma$  to consciously suspend judgment about  $\phi$ ? Note that, as far as logical considerations are concerned, there does not seem to be any evidence against  $\phi$ . Regarding the argument from  $\Gamma$  to  $\phi$ ,  $\mathcal{L}_2$  does not tell us anything about the truth-value of  $\phi$  at all. With the help of  $\mathcal{L}_1$ , on the other hand, we already established that  $\phi$  must true. In fact, if  $\sigma$  knows  $\Gamma$  and if she knows that  $\phi$  follows from  $\Gamma$  according to  $\mathcal{L}_1$ , then—given a suitable closure principle for knowledge—she is even in a position to know  $\phi$ . I submit, therefore, that in scenarios like s suspension of judgment about  $\phi$  is unmotivated.<sup>7</sup>

But let us briefly assume, for the sake of argument, that the fact that at least one logic does not validate the argument from  $\Gamma$  to  $\phi$  is reason enough to suspend judgment about  $\phi$ . This would amount to a strategy of consistently suspending judgement about a conclusion

<sup>&</sup>lt;sup>7</sup>This does not mean that I intend to defend the positive principle like wo+: If  $\Gamma \vDash \phi$ , then for all subjects  $\sigma$ :  $\sigma$  ought to see to it that if  $\sigma$  accepts all sentences in  $\Gamma$ , then  $\sigma$  accepts  $\phi$ . The considerations presented here are only meant so support the claim that in situations like *s*, accepting  $\phi$  is the more plausible option than suspending judgement about  $\phi$ . In general, there may or may not be good reason to endorse wo-, but a general discussion of these principles is beyond the scope of this paper (cf. e.g. MacFarlane 2004; Steinberger 2017).

like  $\phi$  in situations structurally similar to s. In any case in which we accept the premisses of an argument valid-in- $\mathcal{L}_1$  but invalid-in- $\mathcal{L}_2$ , the proposed strategy results in suspension of judgment about the conclusion. As an example, consider the case of pluralism about classical logic and intuitionistic logic. The current strategy tells us to suspend judgment whenever an argument is classically valid but intuitionistically invalid. So, whenever  $\sigma$ knows  $\neg \neg P$ , she is to suspend judgement about P. This does not look like pluralism any more. In fact, it looks exactly like the recommendation an intuitionist logician might give. The challenge for the pluralist adopting the suspension strategy is to show how, in applications like the collapse scenarios, pluralism about classical and intuitionistic logic differs from monism about intuitionistic logic. Absent such an explanation, it appears that the suspension strategy of Beall-Restall pluralism collapses into whatever logic it is that validates all and only the arguments valid in *all* admissible logics.<sup>8</sup> Suspension of judgement does not help the pluralist.

More importantly, note that both the option of accepting  $\phi$  and the option of suspension of judgement are a result of the normative constraints of  $\mathcal{L}_1$ , so there is no immediate route to pluralism about  $\mathcal{L}_1$  and  $\mathcal{L}_2$ , here. It is  $\mathcal{L}_1$  only that constrains our epistemic position in situations like *s* by advising against accepting the premisses and rejecting the conclusion of an  $\mathcal{L}_1$ -valid argument. Both ways of not-rejecting the conclusion lead to one normatively dominant logic, namely the stronger one.<sup>9</sup> There are a number of ways Beall and Restall may respond to this (see e.g. Beall & Restall 2006: 94), but in this paper I want to focus on the diagnosis that the problem is essentially linked to the normativity of logic. This seems to be the predominant view on this issue (see e.g. Caret 2017; Keefe 2014; Priest 2006; Russell 2017; Blake-Turner & Russell 2018). I argue that this diagnosis

<sup>&</sup>lt;sup>8</sup>It is an open question whether there is an admissible type of  $case_x$ , such that it results in a logic that validates all and only the arguments valid according to classical, relevant, intuitionistic, and all other logics that may turn out to be admissible. Let us just assume for the sake of argument that there is such a type of  $case_x$ . If there isn't, this would complicate matters for pluralism even more.

<sup>&</sup>lt;sup>9</sup>This does not commit us to claiming that strength is a virtue (or a vice) of logical systems (cf. Russell 2018). The result is simply that if logics are normative, then the strongest logic will normatively dominate the weaker logics.

is mistaken. Analogous arguments apply even if logic itself is not normative, but entirely descriptive. Whoever is convinced by the original normativity objection has reason to think that non-normative pluralism is in trouble.

Before moving on let me stress what I think the normativity objection is supposed to achieve. It is *not* supposed to show that  $\mathcal{L}_2$  is false, of course. After all,  $\mathcal{L}_2$  is an admissible logic that will never get us from true assumptions to falsehoods. It is also *not* supposed to show that logical pluralism is internally incoherent. The claims that  $\phi$  follows  $\mathcal{L}_1$ -ly but not  $\mathcal{L}_2$ -ly from  $\Gamma$  are perfectly compatible. Rather, the argument focusses on applications of pluralism. It *is* supposed to show, I take it, that there are situations where one logic reliably gets us from true assumptions to true conclusion and where the other logic contributes nothing. The weaker logic does not hurt but it is of no particular use, either. I take it that a classical monist would happily endorse that assessment. The claim would then be that pluralism collapses in certain applications, namely in situations like *s*. The crucial problem is that those situations are just the ones relevant for distinguishing the logics deemed admissible by Beall and Restall in the first place.

## 3 The Descriptivist Reply

The thesis that logic is not normative has recently been defended by Gillian Russell (2017). Even though her paper is much broader in scope, the challenge from normativity is explicitly mentioned as a motivation of the view.<sup>10</sup> The thought is that if logic is not normative, then, all else being equal, the normativity objection developed in § 2 loses its force as an argument against logical pluralism (see also Blake-Turner & Russell 2018). I argue that this is not enough. Even if logic is not normative in the way Beall and Restall and others—pluralists or not—take it to be, this does not mean that the kind of pluralism

<sup>&</sup>lt;sup>10</sup> [O]pponents of pluralism argue that if logic is normative, then pluralism cannot be true and this has led pluralists to make attempts to accommodate the normativity of logic within their views [...]. The present paper argues that logic is not normative, so that there is no need for pluralists to make such accommodations.' (Russell 2017: 1)

at issue is off the hook.

One might think that, generally, the idea that logic is not normative immediately runs into trouble. Obviously, a rational subject who accepts all the premisses of a valid argument and rejects its conclusion makes some kind of mistake.<sup>11</sup> But it is not all that obvious that this mistake arises from normative demands inherent to logic. Clearly, we also think that a rational subject who is trained in basic arithmetic and accepts that the restaurant bill correctly lists all items consumed at the price of 18 \$ and 9 \$ makes a mistake when denying that this amounts to a total of 27 \$. Nonetheless, it would seem premature to conclude that arithmetic is inherently normative.

In order to get clearer on what is at issue here, it is helpful to have a look at Russell's distinction between three degrees in which a theory can be entangled with the normative (Russell 2017: 9–11).<sup>12</sup> On the first and strongest degree, normativity is essential for something to count as a theory of the relevant subject area in the first place. This is the position we have seen in the discussion of Beall-Restall pluralism. Given that the normativity constraint is a necessary condition on an admissible instance of GTT, a theory will not count as a logic unless it is normative. According to the slightly weaker second degree, a theory is normative if the theory itself entails normative conclusions. One of Russell's examples is the sentence 'If one believes  $P \vee Q$  and one believes  $\neg P$ , then one ought to believe Q' (Russell 2017: 4). She points out, however, that this kind of normative entanglement is compatible with a broad range of views about what exactly the normative consequences amount to, so something more similar to the wide scope principle endorsed by Beall and Restall (§ 1) should qualify as well. Russell goes on to

<sup>&</sup>lt;sup>11</sup>We can avoid complications by just stipulating that the subject is aware of the validity of the argument and that the argument in question does not lead to the kind of epistemic dilemmas mentioned in §1. These sorts of complications need to be dealt with independently.

<sup>&</sup>lt;sup>12</sup>The term *theory* is crucial here. The question at issue is not whether the domain studied by means of the theory has normative consequences, but rather which, if any, normative consequences result from the laws given by the theory. In the case of logic, the question is not whether deductive reasoning (or whatever it is that logic is a theory of) is normative, but whether the logical theory (e.g. Beall and Restall's model theoretic account of logical consequence given in terms of GTT) is normative. Thanks to an anonymous referee for asking me to clarify this point.

argue that logic is not normative in any of these two senses. I will simply grant this for the sake of argument.

Russell does think, however, that logic is normatively entangled in a third, very weak, sense: It has normative consequences, but only in combination with other normative assumptions not inherent to the logical theory. On that view, logic is not normative in itself, but there may be normative consequences resulting from logic plus X, where X is an independent normative principle. On this view, an argument like  $\Gamma \vDash$  is what Russell calls 'normatively inert' (Russell 2017: 10).<sup>13</sup> It has no normative consequences in itself. It only gives us the *descriptive* information that not every member of  $\Gamma$  is true. However, combined with the normative principle  $\mathcal{N}_R$  'You ought not to accept things as true if they are not true', suggested by Russell (2017: 10) herself, one can derive the normative conclusion that one ought not accept all of the sentences in  $\Gamma$ . Things get slightly more complicated if we consider arguments like the above  $P \lor Q, \neg P \vDash Q$ . If we want to stick to  $\mathcal{N}_R$ , then the conditional fact that if all members of  $\{P \lor Q, \neg P\}$  are true, then Q is true will have to be rephrased. A candidate that seems to be favored by Russell herself (2017: 11) is something along the lines of 'At least one member of  $\{P \lor Q, \neg P, \neg Q\}$  is not true'. Then the principle 'One ought not accept things as true if they are not true' yields that one ought not accept all sentences of  $\{P \lor Q, \neg P, \neg Q\}$ .<sup>14</sup>

This provides a solution to the mistake intuition mentioned at the beginnings of this section. Even if logic in itself has no normative consequences, we may still think that the subject who accepts the premisses of a valid argument but rejects the conclusion is at fault, and maybe even normatively so. But the reason is not the alleged normativity of logic. Rather, it is the violation of a more general normative principle. I take it to be

<sup>&</sup>lt;sup>13</sup>The double-turnstile with an empty right-hand side means the set on the left-hand side of the turnstile is unsatisfiable.

<sup>&</sup>lt;sup>14</sup>It is not immediately obvious that all non-classical logicians would accept this reformulation. Intuitionists, for instance, may complain that the 'non-truth' of Q is not equivalent to the 'truth' of  $\neg Q$  (or, rather, that the fact that Q is not provable is not equivalent to the provability of  $\neg Q$ ). This may be a good argument against the normative principle proposed by Russell, but I do not think that it is a good argument against the view in general. It just shows that we may need a more sophisticated normative principle that respects the constraints of non-classical logics.

an advantage of the view that the same can be said about the restaurant bill example. Even if arithmetic is not normative, as is typically assumed, the same general normative principle can be used to explain why a subject who rejects that 18\$ and 9\$ add up to 27\$ is normatively at fault.

On the assumption that normative entanglement of the first or second degree is needed for the normativity objection to succeed, this looks like an elegant solution of the challenge. In what remains, however, I argue that the third degree of normative entanglement is enough for the normativity objection to reemerge. This also shows that the objection is independent of the question of whether logic is inherently normative or not. If this is right, then the problem for the relevant type of logical pluralism (see § 1) is more general than commonly thought.

## 4 The Reemergence of the Normativity Objection

Assume that logic is entangled with the normative to the third degree and that otherwise the assumptions of the normativity objection remain unchanged. So suppose that, except for the rejection of the normativity constraint,  $\mathcal{L}_1$  and  $\mathcal{L}_2$  are both admissible instances of GTT.<sup>15</sup> Suppose, further, that  $\Gamma \vDash_1 \phi$  but that  $\Gamma \nvDash_2 \phi$ , and that we know (or accept) all sentences in  $\Gamma$ . On the current proposal, logic is not normative in itself. So, in the case at hand, the logics only give us the descriptive information that  $\phi$  follows from  $\Gamma$ according to  $\mathcal{L}_1$  but not according to  $\mathcal{L}_2$ . However, given that  $\mathcal{L}_1$  is a non-normative but otherwise admissible instance of GTT, an argument valid-in- $\mathcal{L}_1$  preserves truth. So we also get the descriptive information that  $\phi$  is true.

One might think that this is already enough to favour  $\mathcal{L}_1$  over  $\mathcal{L}_2$ . After all,  $\mathcal{L}_1$  gives us more information and this gives us reason to think that it is a better theory. The pluralist

<sup>&</sup>lt;sup>15</sup>The view proposed here is not Beall-Restall pluralism but a variation of it. It is a descriptive version of Beall and Restall's view that drops the normativity requirement (see also Blake-Turner & Russell 2018). All other features remain untouched. I do not intend to suggest that this is a better version of the view. Rather, the aim is to show that the normativity objection arises for non-normative versions of logical pluralism as well.

seems to have an answer to this. She can acknowledge that classical logic preserves truth and gives us more information on which inferences preserve truth. But other logics may preserve additional values apart from truth, like relevance or constructibility. So logics of this kind give us more information on which inferences preserve truth *and* relevance (or constructibility)—a question on which classical logic is silent. The problem is that this answer is not exclusive to pluralism. Monists typically endorse this view as well, but they insist that only one of those logics gives an adequate theory of logical consequence while other logics are theories of different phenomena.

More importantly, this reply is not enough to avoid the normativity objection in the first place. The descriptivist about logic does acknowledge, after all, that valid arguments may have normative consequences (see § 3). The peculiarity of the view is just that these consequences are the result of more general norms that are not specific to logic. Now, the debate on which norms govern belief is extensive, but we need not go into the details here.<sup>16</sup> It is widely assumed that a true belief has some positive normative status and that a false belief has a negative normative status (see McHugh 2012: 8).<sup>17</sup> But for the time being, let us stick to Russell's  $\mathcal{N}_R$  which focusses on the negative normative status of false beliefs. It can straightforwardly be applied to the kind of scenarios at issue in the normativity objection if we understand it as ruling out the state in which a subject believes all the premises of the argument in question and the negation of its conclusion. Given that the argument in question is valid in some admissible logic, it cannot be the case that all sentences in  $\{\gamma_1, \ldots, \gamma_n, \neg \phi\}$  are true. When applied to situation s,  $\mathcal{N}_R$  therefore gives us exactly the same options already discussed in connection with wo- in § 2.

 $<sup>^{16}\</sup>mathrm{See}$  McHugh 2012 and the references therein for an overview.

<sup>&</sup>lt;sup>17</sup>Some modifications of this view may be in order when it comes to paraconsistent logics that allow for models in which the same sentence is true and false. In these models we should, arguably, not give preference to the truth of some  $\phi$  over its falsity. This problem is well beyond the scope of this paper, so I do not offer such a modification, here. It should be noted, however, that analogous problems arise for Russell's  $\mathcal{N}_R$ , too. If  $\phi$  is both true and false,  $\mathcal{N}_R$  tells us not to accept  $\phi$  as true because it is not true. But it is also true. It should be fine to accept it as true.

that  $\sigma$  accepts all sentences in  $\Gamma$  (i.e.  $\gamma_1, \ldots, \gamma_n$  in the current set-up) and assuming that  $\sigma$  conforms to  $\mathcal{N}_R$  and  $\mathcal{L}_1$ ,  $\sigma$  ought not accept  $\neg \phi$ . She should either accept  $\phi$  or suspend judgement about  $\phi$ . Once again, it is  $\mathcal{L}_1$  only that puts constraints on the argument in question.  $\mathcal{L}_2$  is silent on the matter. So if the normativity objection is a problem for Beall-Restall pluralism, it reemerges if a non-normative version of the view is combined with a general norm of belief like Russell's  $\mathcal{N}_R$ .

But the worry need not stop here. Just as in the original normativity objection, a further and independent point can be made about the question of whether acceptance or suspension of judgement is the more convincing attitude towards propositions like  $\phi$ in situations similar to *s*. We have already established that  $\phi$  is, in fact, true and that a subject in the collapse scenario is in a position to know  $\phi$ . Absent any evidence against  $\phi$ , suspension of judgement seems unmotivated, but there seems to be intuitive pressure to accept  $\phi$ .

An analogy from testimony might help to see the point: Imagine two perfectly reliable informants that never give you any false information. In a particular situation, one informant does not give you any information, but the other gives you the information that  $\psi$ . Based only on this testimony, when presented with the options to either accept  $\psi$ or suspend judgement, I take it that accepting  $\psi$  is clearly the most plausible option.

Getting back to the collapse scenario s, there are two ways to accommodate this intuition. First, one might assume that knowing  $\phi$  entails accepting  $\phi$ , so we get the result that  $\sigma$  ought to accept  $\phi$  immediately. Secondly, one might complain that the positive status of true beliefs is not reflected in  $\mathcal{N}_R$ . Maybe this could be amended by adding a clause highlighting the positive status of true beliefs. A somewhat flat-footed implementation of that idea would be something like  $\mathcal{N}_{R+}$ : 'You ought not to accept things as true if they are not true and you ought to accept things as true if you know they are true'. Of course, nothing hinges on this particular formulation. Consider it only a placeholder for a more satisfactory principle. The important point highlighted by both options is that whatever one takes the positive normative status to be, only one of the logics considered in s contributes to that status. On the current proposal,  $\mathcal{L}_1$  and  $\mathcal{N}_R$  yield that one ought not accept all sentences in  $\{\gamma_1, \ldots, \gamma_n, \neg \phi\}$ .  $\mathcal{L}_1$  and either of the two further assumptions yield that if one knows all sentences in  $\Gamma$ —as assumed in Priest's original argument—one ought to accept  $\phi$ . Again, the arguments are parallel to the ones presented in § 2. All that is needed is the replacement of a normative principle like wo-, inherent to logic on the Beall-Restall picture, for a general norm of belief like  $\mathcal{N}_R$  (or  $\mathcal{N}_{R+}$ ). In s, we are normatively at fault if we do not conform our beliefs to  $\mathcal{L}_1$  and accept  $\neg \phi$ , but we are normatively fault-free if we follow  $\mathcal{L}_1$  and accept  $\phi$  or suspend judgment about  $\phi$ . Given that it is preferable to be normatively fault-free, it is preferable to follow  $\mathcal{L}_1$ . We are normatively better off with  $\mathcal{L}_1$ , even though logic is not normative.

# 5 Normative Assumptions of Non-Normative Pluralism

There are two important issues that remain to be addressed at this point concerning the status of the norms in play on Russell's third degree of normative entanglement. The first is that, while there may be a variety of norms of belief, my arguments so far relied on only one type of norm in the vicinity of  $\mathcal{N}_R$ . The other is that the underlying assumption was that this norm is universal.<sup>18</sup> In what follows, I argue that the force of the normativity objection remains even if there are other norms governing the use of the envisaged instances of GTT. Let me address the universality assumption first.

My arguments indeed rely on the assumption that a norm like  $\mathcal{N}_R$  is universal, pushing the normativity objection back from universal norms of logic to universal norms of belief. However, there are a number of reasons why I think this is unproblematic for the points made in this paper. First, as I mentioned in § 4, it is typically assumed that true beliefs have some positive normative status and that false beliefs have some negative normative

<sup>&</sup>lt;sup>18</sup>I am grateful to two anonymous referees for pressing me to clarify these points.

status. Although there is no consensus on specific formulations, the view that *belief in* general is subject to a norm of truth similar to  $\mathcal{N}_R$  is widespread (for discussions see e.g. McHugh 2012; Olinder 2012).

Secondly, it is important to point out that universal epistemic norms are also endorsed by many pluralists—even if they need not include the truth norm in particular. This holds for normativists like Hartry Field who explicitly points out that the brand of pluralism he endorses is based on a plurality of 'overall norms' (Field 2009: 354) yielding different 'all-purpose' logics which are evaluated with respect to global epistemic goals (Field 2009: 356, Fn. 14). But it also seems to hold for non-normativists like Russell (2017) and Blake-Turner & Russell (2018). The most obvious evidence is that  $\mathcal{N}_R$  ('You ought not to accept things as true if they are not true') and the related 'One ought to believe only true things' used by Blake-Turner & Russell (2018) are formulated as general principles. They are portrayed as 'common normative commitment[s] concerning truth and falsity' (Russell 2017: 10) or as 'basic tenets of epistemic normativity' (Blake-Turner & Russell 2018: 17), which makes it implausible to think of them as restricted in scope. As we saw earlier, they are also used when arguing for the parallels between logic on the one hand and physics and mathematics on the other hand (Russell 2017: 11). Now, if some norm of belief is used to establish the continuity between logic and other disciplines, this certainly suggests that this norm is to be thought of as applicable across the board.

At the very least, a norm like Russell's  $\mathcal{N}_R$  seems to apply across different logics, once the current pluralist picture is adopted. Consider, first, an argument valid-in- $\mathcal{L}$ with false premisses and a false conclusion,  $\gamma_1, \ldots, \gamma_n \vDash_i \phi$ . Then consider an argument valid-in- $\mathcal{L}$  with true premisses and a true conclusion,  $\theta_1, \ldots, \theta_n \vDash_i \psi$ . According to the non-normativist picture, all the information we get from  $\mathcal{L}$  is that not all sentences in  $\{\gamma_1, \ldots, \gamma_n, \neg \phi\}$  and not all sentences in  $\{\theta_1, \ldots, \theta_n, \neg \psi\}$  can be true. Still, it is clearly epistemically better not to accept the (false) premisses of the first argument, while it is clearly epistemically better not to reject the (true) conclusion of the second argument. A general principle like  $\mathcal{N}_R$  nicely captures this feature and note, importantly, that it does so entirely independently of which specific logic we take  $\mathcal{L}$  to be. The point applies to classical, relevant, or intuitionistic logic and any instance of GTT deemed admissible by the pluralism in question.

I take it, thus, that my assumption about the existence of at least one general norm on belief—which may be any norm, not just the truth norm—is shared by non-normativist pluralists. If the example just given is on point, then the truth norm is a plausible candidate for independent reasons. Of course, this does not establish that there could not be *other* epistemic norms, which leads us to the remaining point mentioned above: can pluralists avoid the normativity objection by relying on a plurality of epistemic norms?

There is a particular stripe of logical pluralism that is motivated by a plurality of possible *epistemic goals*. Blake-Turner & Russell (2018) defend a view called *Telic Logical Pluralism*, which is basically a variant of Beall-Restall pluralism that trades the normativity constraint on admissible instances of GTT for an epistemic constraint. The suggestion is that only those instances of GTT that are best suited to meet certain epistemic goals are admissible. Blake-Turner and Russell are non-committal as to which specific epistemic goals qualify but they consider truth-preservation, relevant truth-preservation, and demonstrable truth-preservation, which would yield the familiar pluralism about classical logic, relevant logic, and intuitionistic logic. Which logic is admissible in a certain situation depends on the epistemic goal at issue.<sup>19</sup>

Where does this leave us with respect to the normativity objection? Blake-Turner and Russell use the following example, which is close enough to the Priest's original scenario: 'Suppose that the telic pluralist endorses at least classical and intuitionistic logic, as Beall and Restall do. Suppose  $[\sigma]$  is deliberating about whether to draw the conclusion P from

<sup>&</sup>lt;sup>19</sup>Field (2009) also proposes a version of logical pluralism based on epistemic normativity, but his view differs significantly from the ones considered here. Most importantly, Field argues that validity is a normative notion, so his position seems to be an instance of Russell's first degree of normative entanglement. It certainly is not an instance of non-normative logical pluralism, which is why I will not discuss it here.

her known premise  $\neg \neg P$ . Suppose she fails to believe that P even though she knows  $\neg \neg P'$ (Blake-Turner & Russell 2018: 17). Blake-Turner and Russell concede that the case is problematic for normative logical pluralism, but they argue that it is harmless on the telic pluralists' picture. The thought is that if the goal is truth-preservation (simpliciter), then  $\sigma$  makes a mistake. However, if the goal is demonstrable truth-preservation, then '[t]here's no normative pressure whatsoever for her to believe P' (Blake-Turner & Russell 2018: 18). On their picture, normative pressure for some subject to believe P depends not just on the correctness of a logic, but on the epistemic goal at issue. If this is right, then it might appear as if telic logical pluralism had an answer to the normativity objection.

However, there are two problematic points about Blake-Turner and Russell's view, that cast doubt on the non-normative pluralist's potential to deal with the objection in general. First, given that it was assumed that  $\sigma$  endorses classical logic, she is in a position to know that P is true (simpliciter). Even if we concede that  $\sigma$  may not accept the step from  $\neg \neg P$ to P due to her present epistemic goal of demonstrable truth-preservation, it is doubtful whether the right conclusion to draw from this is that there is no normative pressure whatsoever for  $\sigma$  to believe P. After all, this conclusion would license Moore paradoxical utterances like 'P and I don't believe P', which suggests that it is self-defeating on the current assumptions. In accordance with basic pluralist commitments,  $\sigma$  gets the first conjunct from  $\neg \neg P$  and classical logic and she seems to get the second conjunct from the the denial of normative pressure for her to believe P.

The second problem concerns the relation between epistemic norms and epistemic goals. Blake-Turner and Russell seem to assume that our epistemic goals have a rather direct influence on what we ought or ought not believe. However, this is contentious (see e.g. Kelly 2003) and there seem to be cases where the two notions come apart. On the one hand, not any epistemic goal will lead to the suspension of an epistemic norm. For instance, there is clearly something amiss with a subject that believes a false proposition just because it suits her current epistemic goal. Plausibly, the truth norm is not trumped

by some arbitrary epistemic goal like, say, finding out who committed the murder. On the other hand, there are goals that seem to hold even in the absence of particular epistemic goals. As Thomas Kelly puts it, 'in arguing for my conclusions in this paper, I think of myself as attempting to provide strong reasons for believing my conclusions, and *not* as attempting to provide strong reasons for believing my conclusions for those who happen to possess goals of the right sort' (Kelly 2003: 621). So, generally, it is not clear that what a person ought to believe always depends on her epistemic goals.

More specifically, if  $\mathcal{N}_R$  or the related 'One ought to believe only true things' is considered a universal norm, then it is implausible that an epistemic goal like demonstrable truthpreservation simply erases the demands of that norm. As things stand, the normative commitment that  $\sigma$  ought not accept all sentences in  $\{\neg \neg P, \neg P\}$  arises from the descriptive fact that the argument from  $\neg \neg P$  to P is classically valid together with the general normative principle 'You ought not to accept things as true if they are not true'. However, we have seen in §4 that this is enough for the normativity objection to get off the ground once we assume with Blake-Turner and Russell that  $\sigma$  knows P. The fact that there may be a further epistemic goal of demonstrable truth-preservation does not seem take away any of that normative pressure.

One could, of course, argue that this pressure may be defeated in suitable circumstances. Maybe  $\sigma$ 's logic professor asked for a constructively valid proof of P or maybe the mistake  $\sigma$  makes is excusable on some other grounds.<sup>20</sup> This is quite similar to what Blake-Turner and Russell say about the options available to normativist pluralism. However, their conclusion shows that this is of little help: 'either way, there is normative pressure to believe P simply in virtue of classical logic' (Blake-Turner & Russell 2018: 18). The adjustment for non-normativist pluralism is this: there is normative pressure to believe P simply in virtue of classical logic and a general principle like  $\mathcal{N}_R$ .

<sup>&</sup>lt;sup>20</sup>Maybe the better thing to say here is that  $\sigma$  may reject the non-constructive *proof* of *P* due to her epistemic aim, but that, nonetheless, there is normative pressure for her to accept the *P* in virtue of classical logic and  $\mathcal{N}_R$ .

Abstracting from Blake-Turner and Russell's view, here is a more general way to frame the normativity objection in the face of a plurality of epistemic norms. Suppose that, except for the rejection of the normativity constraint,  $\mathcal{L}_1$  and  $\mathcal{L}_2$  are both admissible instances of GTT. Suppose, further, that  $\Gamma \vDash_1 \phi$  but that  $\Gamma \nvDash_2 \phi$ , and that we know all sentences in  $\Gamma$ . Suppose there is a general epistemic norm  $\mathcal{N}_1$  that, in combination with  $\mathcal{L}_1$ yields normative pressure to accept  $\phi$ . Finally, let us grant that  $\mathcal{L}_2$  is the best logic when it comes to following some different epistemic norm  $\mathcal{N}_2$ . On the current analysis, even if we do not achieve the epistemic goal or value associated with  $\mathcal{N}_2$ , we also don't seem to violate any constraints if we accept  $\Gamma$  and do not reject  $\phi$ . After all, the argument from  $\Gamma$ to  $\phi$  is not valid-in- $\mathcal{L}_2$  and the standard position in the literature on the normativity of logic is that normative constraints apply to valid arguments only (see e.g. MacFarlane 2004; Steinberger 2017). This seems sensible even from a non-normativist perspective as logic tells us nothing about the truth-values of the constituents of invalid arguments. Any combination of truth-values is possible, really. In this sense, logic does not even give us descriptive information about invalid arguments. So, it is hard to see how  $\mathcal{L}_2$  will have any normative consequences—even in combination with further normative assumptions independent of  $\mathcal{L}_2$  (or of logic in general)—when it comes to the argument from  $\Gamma$  to  $\phi$ . However, we do violate  $\mathcal{N}_1$  if we accept  $\Gamma$  and reject  $\phi$ . The only way to be normatively fault free, it seems, is to accept  $\phi$  or to suspend judgment.

Of course, a monist about  $\mathcal{L}_2$  has more to say here. She does not endorse  $\mathcal{L}_1$  and this allows her to dismiss any normative constraints resulting from what she considers an invalid argument. She is free to accept  $\Gamma$  and reject  $\phi$ . But this response is not available to the pluralist who endorses  $\mathcal{L}_1$  and, thus, the  $\mathcal{L}_1$ -validity of the argument in question.

I conclude that, on the plausible assumption that there is some general norm of belief, the normativity objection also applies to non-normative pluralism regardless of whether or not there is a variety of further epistemic norms.

## 6 Conclusion

The normativity objection against logical pluralism intends to show that Beall-Restall pluralism is self-undermining in the sense that in every situation in which a subject is deliberating on an argument that is classically valid but not sub-classically valid, the normativity of logic commits the subject to classical logic. If this is correct, then logical pluralism may not be inconsistent, but it appears to be pointless. The problem has typically been attributed to the normativity constraint of Beall-Restall pluralism. Accordingly, it has been suggested that the collapse could be avoided on the assumption that logic is not normative. I argued that the normativity objection is independent of the normativity constraint. As long as we admit that logic has normative consequences, even if they arise from general principles not inherent to logic, the collapse of logical pluralism is an imminent risk.<sup>21</sup>

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## References

- Barrio, Eduardo Alejandro/ Pailos, Federico & Szmuc, Damian (2018): Substructural Logics, Pluralism and Collapse. Synthese. URL https://doi.org/10.1007/s11229-018-01963-3.
- Beall, JC & Restall, Greg (2006): Logical Pluralism. Oxford: Clarendon Press.

Blake-Turner, Christopher & Russell, Gillian (2018): Logical Pluralism Without the Normativity. Synthese. URL https://doi.org/10.1007/s11229-018-01939-3.

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- Caret, Collin (2017): The Collapse of Logical Pluralism has been Greatly Exaggerated. *Erkenntnis*, 82(4): 739–760.
- DeVidi, David (2011): The Municipal By-Laws of Thought. In: DeVidi, David/ Hallett, Michael & Clark, Peter (eds.) Logic, Mathematics, Philosophy: Vintage Enthusiasms. Essays in Honour of John L. Bell. Dordrecht: Springer, 97–112.
- Field, Hartry (2009): Pluralism in Logic. Review of Symbolic Logic, 2(2): 342-359.
- Haack, Susan (1978): Philosophy of Logics. Cambridge: Cambridge University Press.
- Hjortland, Ole Thomassen (2013): Logical Pluralism, Meaning-Variance, and Verbal Disputes. Australasian Journal of Philosophy, 91(2): 355–373.
- Keefe, Rosanna (2014): What logical pluralism cannot be. Synthese, 191: 1375–1390.
- Kelly, Thomas (2003): Epistemic Rationality as Instrumental Rationality: A Critique. Philosophy and Phenomenological Research, 66(3): 612–640.
- Kouri Kissel, Teresa (2017): Logical Pluralism from a Pragmatic Perspective. Australasian Journal of Philosophy. URL http://dx.doi.org/10.1080/00048402.2017.1399151.
- Kouri Kissel, Teresa & Shapiro, Stewart (2017): Logical pluralism and normativity. Inquiry. URL http://dx.doi.org/10.1080/0020174X.2017.1357495.
- MacFarlane, John (2004): In What Sense (if any) is Logic Normative For Thought. unpublished manuscript.
- McHugh, Conor (2012): The Truth Norm of Belief. Pacific Philosophical Quarterly, 93: 8-30.
- Olinder, Ragnar Francén (2012): Rescuing Doxastic Normativism. Theoria, 78: 293-308.
- Pedersen, Nikolaj Jang Lee Linding (2014): Pluralism x 3: Truth, Logic, Metaphysics. Erkenntnis, 79: 259–277.
- Priest, Graham (2001): Logic: One or Many. In: Woods, John & Brown, Bryson (eds.) Logical Consequence: Rival Approaches Proceedings of the 1999 Conference of the Society of Exact Philosophy. Stanmore: Hermes, 23–28.
- Priest, Graham (2006): Doubt Truth to be a Liar. Oxford: Clarendon Press.
- Read, Stephen (2006): Monism: The One True Logic. In: DeVidi, David & Kenyon, Tim (eds.) A Logical Approach to Philosophy: Essays in Honour of Graham Solomon. Dordrecht: Springer, 193–209.

Restall, Greg (2014): Pluralism and Proofs. Erkenntnis, 79: 279–291.

Russell, Gillian (2008): One True Logic? Journal of Philosophical Logic, 37: 593-611.

- Russell, Gillian (2017): Logic Isn't Normative. Inquiry. URL http://dx.doi.org/10.1080/0020174X. 2017.1372305.
- Russell, Gillian (2018): Deviance And Vice: Strength As A Theoretical Virtue In The Epistemology Of Logic. Philosophy and Phenomenological Research. URL https://doi.org/10.1111/phpr.12498.
- Shapiro, Stewart (2014): Varieties of Logic. Oxford: Oxford University Press.
- Stei, Erik (2017): Rivalry normativity and the collapse of logical pluralism. Inquiry. URL http: //dx.doi.org/10.1080/0020174X.2017.1327370.
- Steinberger, Florian (2017): The Normative Status of Logic. In: Zalta, Edward N. (ed.) The Stanford Encyclopedia of Philosophy. Metaphysics Research Lab, Stanford University, spring 2017 edition. URL https://plato.stanford.edu/archives/spr2017/entries/logic-normative/.
- Tarski, Alfred (1936): Über den Begriff der logischen Folgerung. In: Actes du Congrès International de Philosophie Scientifique, volume VII Logique. Paris: Hermann & Cie., 1–11.
- Terrés Villalonga, Pilar (2017): From Natural to Formal Language: A Case for Logical Pluralism. *Topoi*. URL https://doi.org/10.1007/s11245-017-9490-8.