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The Necessary Existence of Inference-Claims
La necesaria existencia de las pretensiones inferenciales

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ABSTRACT
In (2018) Gilbert Plumer argues against the existence of inference-claims on the grounds that they lead to the kind of vicious infinite regress illustrated in Carroll's famous Achilles and the Tortoise paper (Carroll 1895). In Plumer's view, it is not simply that neither arguments nor arguers do make inference-claims, but that they can't do so, on pain of this regress. In further unpublished work Plumer has generalized from this result: it is a mistake to include reference to standards of argument assessment within the content of the argument. Inference-claims (i.e., sufficiency-claims) do not exist, and neither do relevance-claims or acceptability-claims, and all for much the same reason. I will argue that his arguments fail to show that inference-claims do not exist, because the regresses they lead to either are not vicious, not infinite, or can be avoided. Then I hope to show, on the grounds of what I call the 'completeness' of the argument, that inference-claims not only do exist but that they must exist. This is not to say that inference-claims are necessarily asserted in an act of arguing, but asserting them would not lead to the kind of harmful consequences Plumer supposes, any more than their mere existence would.

KEYWORDS: Inference-claims, infinite regress, Gilbert Plumer, Lewis Carroll.

RESUMEN
Gilbert Plumer (2018) se opone a la existencia de "pretensiones inferenciales" alegando que avocarían a un tipo de regreso al infinito de carácter vicioso como el presentado por Carroll en su célebre artículo sobre Aquiles y la Tortuga (Carroll 1895). Según Plumer, no es solo que los argumentos y los argumentadores no incluyan tales pretensiones inferenciales, sino que no podrían incluirlas so pena de caer en tal regreso. En trabajos posteriores no publicados, Plumer propone la generalización de este resultado: es un error incluir referencias a estándares de validación argumentativa en el contenido del argumento. Tales pretensiones inferenciales (i.e. pretensiones de suficiencia) no existen, ni tampoco las pretensiones de relevancia o de aceptabilidad, básicamente por las mismas razones. Defenderé que tales argumentos no logran mostrar que las pretensiones inferenciales no existan, porque los regresos que propician no son viciosos, ni infinitos, ni inevitables. Espero mostrar, a continuación, basándome en lo que llamo "completud" del argumento, que las pretensiones inferenciales no solo existen sino que deben existir. Esto no quiere decir que necesariamente se aseveren en el acto de argumentar, pero aseverarlas no conllevaría las consecuencias perniciosas que Plumer supone, tal como lo las conlleva su mera existencia.

PALABRAS CLAVE: Gilbert Plumer, Lewis Carroll, pretensiones inferenciales, regreso al infinito.

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1. INTRODUCTION

In (2018) Plumer challenges the accepted commonplace that, when we argue, part of what we are doing is making the claim (even if we do not *assert* this claim) that our conclusion is supported by our premises. This claim has been called the *inference-claim*. Plumer (2018) not only denies that we make such a claim but argues for a stronger thesis: not only do arguers or arguments *not* make inference-claims, they ***can't*** make inference-claims. His basic argument is that the view that they make inference-claims leads to a vicious infinite regress.

In this introductory part of the paper I will try to get clear on what exactly Plumer claims. This is difficult, as I believe that Plumer's views are themselves confused and that he vacillates between different explanations of why there is a vicious infinite regress: sometimes the issue seems to be something he calls "completeness", sometimes it is self-justification, and sometimes it is ontological extravagance without any gain in explanatory power. For example, perhaps the following argument (I will call this the "Completeness Argument") could be attributed to Plumer, and will be attributed to him by many of his readers, and is possibly the argument he would like to make:

1) It is a conceptual truth about all arguments that they include an inference-claim as part of their content.
2) To express the content of the argument completely the inference-claim has to be included as a premise.
3) When we have added this extra premise, we have a different set of premises, and hence a different argument, than that from which we started.
4) Since this is also an argument, and all arguments include an inference-claim, this argument is incomplete unless you add its inference-claim as a yet further premise.
5) Therefore, every argument would have as part of its content an infinite number of premises expressing the successive inference-claims.
6) Therefore, no argument could ever in practice be expressed completely, as some part of its content would be omitted.
7) We do express arguments completely.
8) Therefore, it is not a conceptual truth about all arguments that they include an inference-claim as part of their content.

In this argument, the work is being done by the inference-claim's being part of the argument's content being a *conceptual* truth about arguments as claimed in the first

premise, and there is no mention here of justification, which is irrelevant. Plumer's evidence for attributing this claim to informal logicians is Scriven's remark that «*all* arguments depend upon the 'assumption' that you can get from their specific premises to their specific conclusions» (Scriven 1976, p.84), while other informal logicians have said similar things. There is textual evidence for this interpretation of his argument from several comments Plumer makes about making inference-claims being part of the pragmatics of arguing rather than its *semantics*, having a belief about the support of the premises for the conclusion not being *constitutive* of inference, and an inference-claim not being *automatically* added to the argument's premises.

On this interpretation, Plumer could concede that we have a belief about support when we infer, but deny that our having this belief is at all constitutive of inference, that is to say, it is not a conceptual truth about inference that it includes a belief about support, and similarly it is not a conceptual truth about arguments that it includes a premise expressing the relation between the premises and the conclusion, nor is it part of the semantics of saying "P; so, Q" that the argument's associated conditional is true. Instead, it is part of the pragmatics: insofar as we take ourselves to be inferring or arguing well, we are committed to a belief about support and to the associated conditional's being true, but what we are committed to on pragmatic grounds is not part of the content, and an argument would not cease to be an argument if we did not take the associated conditional to be true, otherwise we could not give arguments that we take to be invalid. The associated conditional is an optional premise that we can usually add on pragmatic grounds, but this does not create a regress, which regress only comes about when adding it is semantically required; only if it is semantically required is the argument incomplete without it.

This *Completeness Argument* can be dealt with rather quickly. The fault lies in the first premise, which does not at all express the same thing as "when we argue, part of what we are doing is making the claim that our conclusion is supported by our premises". The point is that the new argument that we get after adding the associated conditional is not at all what we are arguing. Suppose that when we argue "P; so, Q" it is a conceptual truth that the content of the argument is "P, if P then Q; so, Q". But this does not mean that when we argue "P; so, Q" we are also arguing "P, if P then Q; so, Q". This second argument is not one that we are making, and it is not a conceptual truth about *that* argument that it includes an inference-claim as part of its content. In short, it is false that it is a conceptual truth about *all* arguments that they include an inference-claim as part of their content; it is true only of the arguments expressing the contents of what we argue *when we argue*. Arguments that are not argued, such as those new

arguments arrived at by adding extra premises, are not incomplete if their own associated conditionals are omitted. When Scriven makes his comment about "all arguments" I do not believe he is talking about arguments in the abstract logician's sense, and is not claiming that all arguments in that sense of "argument" assume that the conclusion follows from the premises. If this is Plumer's argument, it does not work at all against those whom he is opposing, who would not endorse this much stronger premise.

The *Completeness Argument*, if successful, would not prove that inference-claims do not exist, but the weaker claim that they are superfluous, that they are not part of the concept of an argument. But if he believes, as he appears to in appealing to Carroll's Achilles and the Tortoise story, that any addition of an argument's inference-claim as a premise creates a new argument, and that this leads to a vicious infinite regress, then he is not really entitled to this weaker thesis, or to the *Completeness Argument* that supports it; whatever our reasons for adding the associated conditional, Plumer seems committed to telling us that we can't.

In this he actually agrees with the informal logicians who he criticizes, whose reasons for refusing to include the associated conditional as a premise are motivated by Carroll's regress argument and do not seem to depend on that premise's being a needed premise, or on the argument's being incomplete without it. Where he disagrees is in the measures informal logicians have taken to avoid this regress (to be discussed later); rejecting these, but seeing the peril of the regress, he sees little alternative but to reject inference-claims outright. Thus, he might have in mind the following argument that concedes that when informal logicians say that i*nference-claims necessarily exist* they do not claim that it is a conceptual truth of all arguments that they include inference-claims (as Plumer has possibly read Scriven) but the weaker claim that I have endorsed:

i) When we argue it is entailed that we make an inference-claim.
ii) This inference-claim is a premise in the argument
iii) Adding the inference-claim as a premise in the argument leads to a new argument and hence an infinite vicious regress of arguments.

Informal logicians solve this trilemma by rejecting (ii). Rejecting this as a solution, Plumer rejects (i). For the moment, the important point is that given his principal reason for rejecting inference-claims, namely the endorsement of (iii) – these being the same reasons that informal logicians have for taking special measures to avoid the regress – and endorsing also (ii), anything less than claiming that inference-claims *cannot* exist and are not made when we argue, thereby denying (i), would be inconsistent, as a vicious

regress follows on either the stronger reading where the addition of the conditional is required on theoretical/conceptual grounds or on the weaker reading where adding it is simply superfluous. Consequently, for Plumer, it is not just a contingent fact of the matter that inference-claims do not exist. They are *impossible*. It is not simply that they are not made, they ***can't be made***, no matter by what or for what reason (or for no reason at all). We will call this the NON-EXISTENCE VIEW. The kind of grounds on which Plumer rejects inference-claims do not entitle him to any view weaker than this one, so I do not think I am attacking a straw man by attributing this view to him. The textual evidence that seems to indicate that he takes the stronger reading in some places is evidence of confusion or vacillation.

This argument is not dealt with as quickly as the Completeness Argument, and much of the rest of the paper is concerned with bringing into the light the errors of reasoning both Plumer and those he criticizes commit here. Here is a foretaste: unlike Plumer who rejects (i) and the informal logicians who reject (ii), I hold both (i) and (ii) and reject (iii). In doing this I am not only disagreeing with Plumer but I am also disagreeing with those many informal logicians who would hold (i) but not (ii) out of the same fear as Plumer's of entering into a vicious infinite regress. Because he rejects (rightly, in my view) the measures taken to avoid this regress, Plumer finds himself committed to denying (i); once you have admitted (i), there is no justification for not admitting (ii) as well, and since (i) and (ii) lead to a vicious infinite regress, we must reject (i). On the point that it is incoherent to hold (i) and reject (ii) Plumer and I are in agreement, against the majority of informal logicians. The difference between our positions is over the viciousness of the regress in (iii). By denying that it is vicious and holding both (i) and (ii), I stand alone against both Plumer and those he criticizes.

To deny Plumer's NON-EXISTENCE VIEW I do not, then, need to prove that in arguing the arguer (or argument) *ipso facto* makes an inference-claim; it is enough for my purposes to show that adding an inference-claim does no harm, even if it does no work, and that is all that my denial of (iii) implies. Let us call this middle ground the SUPERFLUITY VIEW: an inference-claim *can* be made, but this is an additional act that is permissible but not already performed in the act of arguing itself. (This is the view that the *Completeness Argument* would support were it correct.) I will go further: adding the inference-claim *by making it a premise in the argument* does no harm either and does not lead to the kind of logical disaster Plumer supposes.

At times it seems like Plumer would be contented if he could only establish the SUPERFLUITY VIEW (Plumer 2018, p.916):

> [A]n arguer is "committed" to the associated conditional insofar as it would be inconsistent for the arguer to deny it (e.g., Ennis, 1982, p. 83; Berg, 1987, p. 17; Hitchcock, 2000, p. 6). Certainly, it seems that if I sincerely argue "*A*, so *B*" I must *believe* that *A* supports *B* or *if A then B*. Arguments (other than in the strictly formal sense of implication relationships between propositions) have intentional features, such as that the premises are intended to support the conclusion. But to believe that your premises are sufficient (or relevant or acceptable) is not to *claim* this at all, let alone to make it a premise or assumption in your argument.

Even if it is true that having this belief (in the associated conditional, that is to say, the inference-claim) is not to make it a premise in your argument, this only supports the SUPERFLUITY VIEW, as it does not *prohibit* the arguer making it a premise in their argument but if anything implies that the arguer can make it a premise. But I do not think that Plumer is simply arguing for the SUPERFLUITY VIEW here, even though this is all that actually follows from his argument. I think that Plumer takes it as supporting the stronger NON-EXISTENCE VIEW and not just the SUPERFLUITY VIEW because failing to notice that this motivation for his view does not support this stronger thesis but if anything militates against it, since if the arguer has such a belief then I do not see how one could validly object to the arguer including it as a premise, even if it is a redundant one. Perhaps Plumer thinks that although there is a belief about support, it is like one of those beliefs like "I am alive" that must be true when I argue but is not being explicitly advanced or relied on. But adding such propositions will obviously not create any logical problem, so if the outcome of Plumer's argument is simply to assimilate inference-claims to propositions like "I am alive" this will only support the SUPERFLUITY VIEW and not the NON-EXISTENCE VIEW.

Anyway, the proposition that the standards of argument assessment are satisfied (as claimed by the inference-claim) is not like "I am alive" because it *rationalizes* our conclusion: by this I mean that when we argue or reason we are not just undergoing causal transitions between our premise-beliefs and our conclusion-belief but that it is in virtue of the representational contents of those beliefs that those particular transitions are cases of reasoning and the conclusion-belief a rational belief to have in light of the premise-beliefs (and obviously this is not true of "I am alive"). In short, what makes some inference that we perform an instance of reasoning rather than some other causal transition is the fact that the reasoner is relying on these propositions being true. I think that anything relied on in this way is a genuine premise because without it the argument is not 'complete' in a sense to be described later (different from the one at issue in the *Completeness Argument*); it is an open question at this point whether such premises are also superfluous, and if so, in what ways they are superfluous.

This more modest view in which Plumer concedes that the arguer has a belief

about support but does not claim it contrasts starkly with the view he takes at other times (in ms.) where Plumer seems to want to say that we do not even have a *belief* about support, let alone make a *claim*—he would deny what I have just said and claim that reasoners do not have any belief about the relations between the contents of the propositions we entertain when we reason, that is to say, have the belief that the premises support the conclusion (in virtue of the representational contents thereof). This seems to presuppose that if we did have such a belief, the propositional content of this belief *would* be a genuine premise and it *would* be at least permissible (even if not mandatory) to include this premise in the set of premises. Since it is *not* permissible, then we cannot have even this belief! This seems in tension with his argument in the excerpt above where Plumer concedes that we can and do have this belief. It would be nice to think that Plumer has realised that his earlier argument does not support the stronger thesis and this explains why he now makes this much stronger claim, but if so, he never says so. It should be noted how quickly Plumer's NON-EXISTENCE VIEW has led him to this rather extreme opinion. Even *believing* the inference-claim to be true leads to logical disaster! Yet surely we do have such beliefs (and this is something Plumer conceded earlier)! Or at least, we do not find ourselves in any kind of paradoxical situation when we do have such beliefs. However, Plumer will find precedent for this view in the theory of inference: when we infer, some will hold, we do not and cannot have a belief that the premises support the conclusion, on pain of infinite regress. This argument is absent from (2018) but is present in (ms.).

I think that Plumer's view on reflection would not be that we cannot have beliefs about support, but to deny that having those beliefs is in any way constitutive of inference. But he still seems committed to the claim that we cannot include the propositional content of such beliefs as premises, even if they rationalize the conclusion, because to do so will lead to *Carroll's Regress*, whether we have the belief or not.

Before embarking on more detailed analysis, I will sketch out the pros and cons.In favour of the existence of inference-claims are some intuitions that can be grouped into three broad groups:

> **INTUITION 1**: Intuitions concerning inference, and in particular the distinctive phenomenology of inferring and reasoning generally as personal-level psychological processes. (These are mentioned briefly above).
>
> **INTUITION 2**: Intuitions about argumentative language (for example, what is meant by "so" when we argue "Premises; so, Conclusion"), and in particular about the incompatibility of certain combinations of attitudes as used to explain certain

linguistic infelicities (for example, the infelicity of saying "Premises; so, Conclusion. But the conclusion does not follow from the premises").

INTUITION 3: Intuitions about arguer's intentions, and in particular the arguer's intention to give a good argument.

Not all those who argue for inference-claims do so on the basis of all three intuitions, though I suspect that most would implicitly endorse all three. The one that is explicitly appealed to the least is INTUITION 1, which is appealed to by Bermejo-Luque.

Against the existence of inference-claims is the fact that Plumer thinks that they lead to Carroll's Achilles and the Tortoise regress (Carroll 1895). A number of regresses (to be discussed in more depth later) will be mentioned in this paper and we should keep their differences in mind:

The Taking Regress: This regress occurs in the attempt to distinguish inference from other transitions between belief-states, e.g., those falling under "laws of association".

Grennan's Regress: This regress occurs in making the logical structure of an argument explicit and involves filling in so-called "logical gaps". There are a couple of reasons why a theorist might take there to be a logical gap: because he thinks that the argument would not be good without it, or because he thinks that the argument would not be an accurate reconstruction of how the arguer takes his conclusion to follow from his premises without it. I take the second view. It is a conceptual regress concerning what is needed in order for an argument to be "complete". I will argue that some of Plumer's concerns about the "new argument" that we get when we add the associated conditional actually seems to be appealing to this regress, though he does not take "completeness" in the same way as I am taking or, I think, in the way Grennan takes it.

The Warrant Regress: This is a regress in justification that occurs if you take the conditional as justifying the inference.[1] I will argue that when Plumer talks about the inference-claim being a "self-referential meta-claim" it is this regress that is in his mind, but that he does not seem to realise it and for this reason fails to see that this problem has been solved (by Bermejo-Luque), and without knowing it Plumer actually seems to endorse her solution.

Carroll's Regress: This is also a regress in justification, but beyond that broad

[1] A note of caution: it is necessary to distinguish between justifying the *inference* and justifying the inference's *conclusion*. Obviously, the argument including the conditional justifies the argument's conclusion, but it does not justify the inference, i.e., the step from the non-conditional premise to the conclusion, for this amounts to *self*-justification.

> consensus there are many different interpretations of what moral we ought to draw from it. This will be discussed in more detail later and will not be discussed now. The only point that I want to make here is that it is not the *Warrant Regress*. In the *Warrant Regress* nobody doubts or denies the validity of *modus ponens*, as the Tortoise does in Carroll's famous paper.

Much of the controversy in argumentation theory is over how we should deal with the inference-claim in response to *Carroll's Regress*. I stressed the difference between the regresses in the previous paragraph because those who think that *Grennan's Regress* and the *Warrant Regress* can be stopped nonetheless take *additional* action in order to avoid *Carroll's Regress*. Unfortunately, I think that Plumer does not distinguish carefully enough between these regresses, and when you look at his explanations of why *Carroll's Regress* and hence inference-claims are harmful (that will be discussed later) they look like the reasons motivating *Grennan's Regress* or the *Warrant Regress*, and Plumer seems to believe that it is for those reasons that the theorists he criticizes adopt the responses they do. In other words, I think that Plumer fails to realise that these theorists take *Carroll's Regress* as a distinct regress motivated by distinct considerations presenting additional problems and requiring an additional response, and this is probably due to failing to distinguish between them, since if *Carroll's Regress* is the only regress in town then whatever considerations motivate positing a regress and solving it are *ipso facto* considerations motivating *Carroll's Regress* and the response to it.

What are these responses? There are two widely recognized responses in the literature, and one less widely recognized:

> **THE RULE VIEW**: Treat the inference-claim as a rule, either a rule expressing the *logical minimum*, or a generalization entailing the *logical minimum*.[2]
>
> **THE NECESSARILY IMPLICIT PREMISE VIEW**: Treat the inference-claim as a premise, but insist that it can never be made explicit.[3]
>
> **THE STRAIGHTFORWARD PREMISE VIEW**: Treat the inference-claim as a (possibly redundant) premise, full stop (Botting 2016b & 2017).

To these we might add:

> **THE NON-EXISTENCE VIEW**: There are no inference-claims! They do not exist! (Plumer 2018 & ms.)

[2] See Russell (1937, pp.35-36), Ryle (1950, pp. 306-307), Hitchcock (2011) and especially Hitchcock (2017, p.76) (a re-print of Hitchcock 1998) for Hitchcock's reasons for preferring the RULE VIEW to the NECESSARILY IMPLICIT PREMISE VIEW.

[3] See Govier (1987, pp.96-97), Grennan (1997, p.69), and Bermejo-Luque (2004, pp.174-175).

The RULE VIEW and the NECESSARILY IMPLICIT PREMISE VIEW are the ways in which informal logicians attempt to hold claim (i) and (iii) while rejecting (ii) in the trilemma. The STRAIGHTFORWARD PREMISE VIEW allows one to hold both (i) and (ii) and reject (iii). Plumer's aim is to defend the NON-EXISTENCE VIEW, holding (ii) and (iii) while rejecting (i), and if his defence works it seems to cut off the controversy at its roots: those involved in the controversy are arguing about something that doesn't exist! It is not so much an alternative to the other three views as a way of cutting away the ground beneath their feet. In doing so, Plumer has to explain why the intuitions (mentioned earlier and the subject of the next section) motivating the claim that there are inference-claims are misleading, and this will be the subject of Section 3 of this paper. Insofar as the intuitions I am about to explain support the *necessary* existence of inference-claims (but not their necessarily being asserted), they are supposed to be intuitions against both the NON-EXISTENCE VIEW and the SUPERFLUITY VIEW.

2. THE ARGUMENT FOR THE EXISTENCE OF INFERENCE-CLAIMS

2.1. Intuition 1: The "Taking Condition" on Inference

When I give an argument the argument is a representation of my inference. There is a question about what makes an inference specifically an inference as opposed to being an association of attitudes. That there is a distinction between the two things is obvious to us at the personal level, as when we reason we do more than introspect one belief occurring after another, or one being caused by another; rather we take the one as being *rationalized* by the other, and this being rationalized is not something that we are just passively aware of but is something that plays an active role in inferring, which is to say that we infer one thing from another *because* we *take* the latter to rationalize the former. If we do not do this, then although our belief may be propositionally justified, what we have done is not *inference*. There is, then, a *Taking Condition* on inference and reasoning that distinguishes it from other kinds of processes, and we are aware at a personal level of these differences.

This intuition re-appears in argumentation theory through Bermejo-Luque (2011, p.90) who asks the questions: what makes a mere transition from a cognitive input to a cognitive output count as an act of reasoning? What makes putting forward a couple of claims count as an act of arguing? She says: the difference is that an inference-claim can be attributed to the arguer. Plumer wishes to deny this claim, following Boghossian's (2014) objection that if our taking the belief that *q* supports *p* is part of what rationalizes our inferring *p* from *q*, with support amounting to applying a general rule, then we need

a further belief in a further rule to support our applying this general rule to the particular case. This further rule will be *modus ponens*. And then there will be a yet further application of this rule to show that the first application of *modus ponens* applies to the particular case, and so on. Thereafter there will be either an infinite regress of *modus ponens* inferences (this is the *Taking Regress* and resembles but is not the same as *Carroll's Regress*), or *modus ponens* inferences will have to be treated as basic and not to require any further belief about support, so the account would not apply to *modus ponens* inferences.

One thing worth noting is that what creates the *Taking Regress* is *not the having of the belief, or even this belief's being constitutive of inference, but its being constitutive of inference that we take the belief to rationalize what is inferred*. It is the *taking*, and not the *believing*, that creates the problem. Even those who think that the *Taking Condition* can be satisfied without involving a belief about support would not deny that the inferrer has a belief about support, but deny only that having this belief is at all constitutive of inference; at times at seems like Plumer would accede to this, but then it is not at all clear how he thinks *Carroll's Regress* is avoided. By interpreting the regress to be caused by merely having the belief rather than taking it, Plumer fails to grasp the real reason for the regress and as a consequence finds it incumbent on him to claim that we do not even have a belief about support, but brevity will not allow me to analyse his argument.

2.2. Intuition 2: The Semantics of Argumentative Indicators

This intuition appeals to linguistic intuitions. Hitchcock (2011) claims that the use of argumentative indicators like "so", "since" and "therefore" have the inference-claim as part of their meaning. There seems to be something distinctively rational about the combination of the belief-states representing the premises and conclusion that go either side of these indicators; when we say "*q*, so *p*" we are saying more than that it is rationally consistent to have both the belief that *p* and the belief that *q*. In fact, he goes further, seeing the indicators to be making implicit appeal to some generalisation of the inference-claim because of which the stated conclusion follows from the premises (or: he takes the inference-claim to be the generalization rather than the associated conditional itself, which in the end he seems to dispense with). This generalisation is rule-like and not a premise, making Hitchcock's a version of the RULE VIEW.

A different kind of appeal to linguistic intuition consists in observing the Moore-like oddity of saying something like "*Q*; therefore, *P*. But *Q* does not support *P*". The *Taking Condition* of the previous section has often been motivated on the grounds that

it seems to provide an explanation of this *Inferential Moorean Phenomenon*: inferring *p* from *q* involves thinking that *q* supports *p*, and it is irrational or impossible to think at the same time that *q* supports *p* and that it does not support *p*.[4] To infer *p* from *q* without thinking that *q* supports *p* would be *inferential akrasia*. There is something distinctively irrational about this combination of states, and a likely explanation of this is that they are both belief-states but with contents that cannot be true at the same time. This implies that we have beliefs about support, and indeed that our having such a belief is a conceptual truth about inferring.

2.3. Intuition 3: The Satisfaction Conditions of Arguing

A further intuition, considered *en passant* by Plumer but never explicitly considered by him, is that the arguer is at least attempting to give a good argument (Botting 2016b). On informal logic's view that an argument is good if the premises are relevant to the conclusion, sufficient for the conclusion, and acceptable, an arguer is then not only making an inference-claim (claiming that the premises are sufficient for the conclusion) but also a relevance-claim and an acceptability-claim. Because of this, Plumer is well-motivated in generalizing from inference-claims (in 2018) to other claims that are necessary for the argument to be a good one (in ms.). In fact, I think that it must be because of his recognition of a view of this kind that he feels the need to make this generalization and that he will claim that it is a mistake to include standards of argument assessment as premises.

3. THE ARGUMENT AGAINST THE EXISTENCE OF INFERENCE-CLAIMS

Plumer rejects all three intuitions.

3.1 Rejection of Intuition 1

Discussion of this intuition is absent from (2018) and appears only in (ms.) where Plumer claims that the *Taking Condition* is simply false. We do not take beliefs about support to be constitutive of the act of inferring; in fact, by his account we do not even have such beliefs. Since the inference-claim represents a belief about support, for there to be no inference-claim Plumer has to claim that there is no belief about support, and this is what he does—there is no infinite regress in beliefs about support, and hence no infinite regress in the inference and in further consequence no infinite regress when the

[4] The origin of this argument seems to be Hlobil (2014, p.420) which is cited in McHugh and Way (2016, p.321). It is Hlobil who christens this as the *Inferential Moorean Phenomenon*.

inference is reconstructed as an argument.

Plumer's reasons for claiming this are confused, and too confused to be untangled here. He is wrong about what causes the *Taking Regress* (it is *not* having a belief about support that causes the regress), and by being wrong about this is consequently wrong about what would amount to avoiding the regress, and because of this misinterprets how some philosophers have proposed to avoid it. But like I say, brevity will not allow me to offer supporting argumentation here.

Instead, I will make one observation that I think will make the whole debate irrelevant. Even if there is no infinite regress in the inference it will not follow that there is no infinite regress in the argument if *Carroll's Regress* does indeed apply, and as long as there is still a taking then this 'taking' could be reconstructed as a premise in the argument – whether or not what is being 'taken' is a belief about support or something else – and so lead to regress. But even if there is not even a 'taking' (as Plumer seems to imply in denying the *Taking Condition*) Plumer's view is not only committed to arguers having no belief and no 'taking'—they cannot be in *any* kind of mental state such that beliefs about support could be attributed to them after the fact.

However, insofar as there are other possible explanations of the *Inferential Moorean Phenomenon* [Plumer follows McHugh and Way (2016) here, or at least thinks he does] that do not require there to be a belief about support, this particular intuition in favour of the necessary existence of inference-claims is inconclusive.

3.2 Rejection of Intuition 2

These were actually two intuitions: the intuitions that "so", "therefore" and other argument-indicators have as part of their semantics[5] that the speaker is committed to belief in the inference-claim, and the *Inferential Moorean Phenomenon*. Plumer, of course, wants to deny any such thing: it is not part of the semantics of argument-indicators that the speaker is committed to belief in the inference-claim.

What argument-indicators indicate is not an inference-claim, he argues, but an inference (Plumer 2018, p.915):

> The use of an argument-indicator term such as 'so', 'therefore', or 'since' means that the arguer is inferring; . . . they do not mean that the arguer or argument is making a self-referential meta-claim that, if true, would warrant this inference (the meta-claim being that the premises support the conclusion).

[5] There are a few variations of this view that disagree about what is in the semantic component and what is in the pragmatic component of the conditional given as the inference-claim. See Hitchcock (2017, Section 8.7) for a survey.

What seems to motivate Plumer's belief here is that Intuition 2 leads to the view that the meta-claim – that is to say, the inference-claim – justifies making the inference from the premises to the conclusion, and that without this meta-claim, making the inference would be unjustified. But this threatens a vicious infinite regress since we cannot just suppose that the meta-claim is true, and we cannot make the inference justified just by making a claim which, if true, warrants it, while being ignorant of whether it is true, as this amounts to self-justification. We have seen this already under the title of the *Warrant Regress*.[6]

I will be discussing the *Warrant Regress* in more detail later. For the moment I would just observe that what Plumer says here implies that the inference-claim is not made only on the assumption that such an inference-claim is a «self-referential meta-claim that, if true, would warrant this inference» and not «essentially […] (identical to) the argument.» Plumer is right, I think, in identifying this as implying a vicious infinite regress, but it is the *Warrant Regress* and not, as I think Plumer believes, *Carroll's Regress*. Anticipating, I think that inference-claims should not be interpreted in this way (but in the way Plumer himself seems to be suggesting when he says that essentially it is identical to the argument), and thus the *Warrant Regress* never gets started. By not interpreting it this way we do not, however, avoid *Carroll's Regress*; if we were, there would be no perceived reason to add the RULE VIEW or NECESSARILY IMPLICIT PREMISE VIEW as well. Plumer is right insofar as neither of these views (which he rejects) would solve the problem he is raising here, but the problem he is raising is not *Carroll's Regress* at all, although he thinks it is.

Saying this, I am not actually sure that "so" does imply an inference-claim, so I would not lay too much store in this intuition. Plausibly, I think that what "P; so, Q" says is that reasons for believing P are reasons for believing Q, i.e., R[B(P)] strictly implies R[B(Q)]. As for the *Inferential Moorean Phenomenon*, I have already said in the last section that it is inconclusive.

Intuition 2 is, in my opinion, inconclusive.

3.3 Rejection of Intuition 3

Plumer denies these intuitions because he thinks that if you think of the inference-claim (and latterly the relevance-claim and acceptability-claim) as a part of the argument, you are committed to the kind of vicious infinite regress described in Carroll (1895). Plumer reconstructs Carroll's argument as:

[6] For reasons of space I will omit discussion of Plumer's suggestion that we mistakenly take "so" to have this semantics because "follows", as it occurs in conditional proof, does have this semantics.

> *(A)* "Things that are equal to the same are equal to each other.
> *(B)* The two sides of this Triangle are things that are equal to the same.
> *(C)* If *A* and *B* are true, *Z* must be true.
> *(D)* If *A* and *B* and *C* are true, *Z* must be true.
> .
> .
> .
> ∴ *(Z)* The two sides of this Triangle are equal to each other."
> The vertical margin dots represent an infinite series of recursive iterations in the manner of *C* and *D*. We may take the [inference-claim – DB] . . . first as *C* for the argument explicitly composed of *A*, *B* and *Z*; then as *D* for the argument explicitly composed of *A*, *B*, *C*, and *Z*; and so on. (Plumer ms., 1)

The problem, according to this understanding, is that once you add the inference-claim to the argument you get a different argument which itself has an inference-claim, leading to a vicious infinite regress. It is easy to see how a similar regress might be generated by relevance-claims and acceptability-claims: whenever a premise is added, a new argument is created and the question re-emerges whether this new premise is acceptable and whether the new set of premises is relevant to the conclusion.

It is in order to avoid precisely this regress that the RULE VIEW and NECESSARILY IMPLICIT PREMISE VIEW are advanced. The RULE VIEW suggests that, by treating the inference-claim as a rule *in accordance to which* we reason rather than as a premise *from which* we reason, the regress can be avoided. In contrast, the NECESSARILY IMPLICIT PREMISE VIEW locates the problem in the fact that the premise is made explicit, and supposes that by leaving it implicit the regress is avoided. Note that neither of these views rely on the inference-claim's being a *needed* premise or a self-justifying claim: Grennan, for example, would happily concede that the conditional is not a needed premise and that the argument is complete without it, yet still sees a need to adopt the NECESSARILY IMPLICIT PREMISE VIEW as a way of avoiding *Carroll's Regress*, and Bermejo-Luque adopts the NECESSARILY IMPLICIT PREMISE VIEW despite arguing that the *Warrant Regress* never gets started.

4. INFINITE REGRESSES

So far we have mentioned three infinite regresses: the *Taking Regress*, the *Warrant Regress*, and *Carroll's Regress*. It is important to realise that these are all distinct. The distinctness of the *Taking Regress* is, I think, understood by Plumer, but I think he conflates the *Warrant Regress* and *Carroll's Regress* and this causes him to mis-identify the motivations for the RULE VIEW and especially the NECESSARILY IMPLICIT PREMISE VIEW. Avoiding the *Warrant Regress* does not *eo ipso* avoid *Carroll's Regress*—it is quite possible to stop the *Warrant Regress* and yet still feel, under the pressure of *Carroll's Regress*, that something like the RULE VIEW or the NECESSARILY IMPLICIT PREMISE VIEW

must be true. Much the same can be said of *Grennan's Regress*. This also means that in order to motivate Plumer's NON-EXISTENCE VIEW it is not enough to solve the *Warrant Regress*.

The aim of this section is to reconsider what really follows from Carroll's infinite regress argument. In its first part I will show how Plumer uses it. In its second part I will show how I use it: I will describe several ways in which a regress may be vicious, and show that the regress that Plumer claims to ensue upon supposing inference-claims to exist is not vicious in any of these ways. I will show that on Botting's STRAIGHTFORWARD PREMISE VIEW the problems Plumer raises are dissolved, and I will counter some of Plumer's responses to Botting's view, in which it will be shown that Plumer misunderstands Botting's view. Finally, I will argue that in arguments that reconstruct an inferrer's inferring or an arguer's arguing an inference-claim must exist as a matter of necessity on the grounds that without it the reconstruction would not be 'complete' and would contain 'logical gaps'. I do not claim that this is true of *all* arguments, however.

4.1. Plumer's Use of Carroll's Regress

At (2018, p.915) Plumer puts it this way:

> [I]t is hard to see what an assumption of an argument is if not a premise […] and it is hard to see what relevant difference it could make whether the claim is explicit or implicit. Rather, it seems to me that it is taking situated reasoning to warrant itself […] that is the problem. Arguments make no such assumption or inference claim as that the premises support the conclusion. Instead, in an argument the conclusion is actually inferred from the premises […] it is not claimed to be inferable […] The arguer or argument is [not – DB] making a self-referential meta-claim that, if true, would warrant this inference (the meta-claim being that the premises support the conclusion).

In saying that it is hard to see what an assumption of an argument is if not a premise Plumer is questioning whether the distinction between a rule and a premise can do any real work, thereby rejecting the RULE VIEW, and in saying that it is irrelevant whether the premise is implicit or explicit, Plumer takes himself to be rejecting the NECESSARILY IMPLICIT PREMISE VIEW on the grounds that it makes no difference whether it is explicit or implicit so long as reasoning is taken to "warrant itself", that is to say, that the inference-claim would, if true, warrant the inference. What should be attributed to the reasoner is the inference itself and not the inference-claim.

However, before this paragraph we seem to get a slightly different view. There Plumer appears to say that our reason for adding an inference-claim after the first iteration is simply to make it explicit: «Yet this new argument's inference claim is "if *A* and if *A* then *B*, then *B*," and when this is added to the new argument for the same

reason—making the inference claim explicit—an expanded argument and corresponding inference claim is generated, and so on, ad infinitum» (Plumer 2018, p.914). Here he seems to be appealing to *Grennan's Regress*, but it is not obvious here that this new inference-claim is needed to warrant the inference or conclusion or whether Plumer thinks that it is. This is where Plumer's argument most resembles the *Completeness Argument* I gave earlier: if it is a conceptual truth about all arguments that they have an inference-claim as part of the content that can consequently be made explicit, then making it explicit will lead to a different argument which also, as a matter of conceptual necessity, will have an inference-claim that can be made explicit, and so on. I explained there what is wrong with this argument: there is no conceptual necessity for the second argument to have an inference-claim because the second argument is never argued. Saying that we necessarily make an inference-claim when we argue does not mean that as a matter of conceptual necessity all arguments have inference-claims as part of their content.

Without some kind of claim that it is a conceptual truth about all arguments that they contain an inference-claim, it is not obvious why this regress should be an infinite one. True, you will get a 'new' argument when you add the associated conditional, and that argument will also have an associated conditional. But I do not see how this second conditional fills any logical gap in the argument you get after adding the first conditional—*that* argument is conceptually complete on its own, for reasons I will shortly explain. This being so, I do not see how one is under any obligation to make it explicit. You can carry on adding conditionals if you want to – there is nothing to stop you, and it does not create any harmful regress to do so – but it is not required on the grounds of completing the argument, since it is already complete after the first has been added.

Note the direction of the derivation here: it is not that we endorse the argument with the first associated conditional because we antecedently endorse the argument with the second associated conditional, but that we endorse the latter because we endorse the former! In that sense, it is not a regress at all, but a progress! Note also that this is so even for the argument with the first associated conditional: if the argument *without* the associated conditional is already valid, then the argument *with* the associated conditional will itself be a logical derivation of that argument. To put it another way, adding the associated conditional to an already valid argument is non-ampliative. The arguments deeper into the regress are derived from the original argument and, on the basis of the rule of contraction, have the same logical properties as the original argument. The point is that the regress does not produce any ampliation.

Equally, there is no regress in acts of arguing. In an act of arguing you make an inference-claim and thereby generate a new argument which, *if* itself expressed in a new act of arguing, would make a new inference-claim. But there is no need for this second act of arguing; the first act of arguing in no way commits you to this second act of arguing. You *could* give this second argument – it would not be viciously regressive – but you would only have to give this second argument if you thought (mistakenly) that the first argument would be incomplete without this second inference-claim.

So, there is no infinite regress either in the reconstruction of someone's argument or in their acts of arguing. This regress, then, consists in only two arguments. It is not infinite and not vicious, and I do not think that Grennan takes it as such.

Plumer (2018, p.914) also complains that once we make the inference-claim part of the argument, the argument becomes trivially a good one:

> If we "add" this claim to the argument "in an attempt to make the inference claim explicit," then the argument's form evidently will be that of Modus Ponens. As if by magic, notice, what might have been a deductively invalid argument (e.g., where A is true and B is false) becomes valid.

These two objections – that it leads to an infinite regress, and that it makes satisfaction of the conditions for good argument too easy – are the core of Plumer's critique. In (ms., 4) he makes similar remarks about relevance that if you make a relevance-claim part of the content then this magically makes the premises relevant to the conclusion just as adding an inference-claim magically makes the premises logically sufficient for the conclusion.

4.2. Conceptual and Epistemological Issues

The first thing I would note is that I think Plumer conflates conceptual issues with epistemological issues. The reason for including the inference-claim as part of the argument is *not* because it is needed to warrant the conclusion, for if the premises of the argument were already sufficient to justify the conclusion then adding the inference-claim/sufficiency-claim will not make them more so, and if the premises were not sufficient adding the inference-claim will not make them so, because the inference-claim added will be false! Assessing the validity of the original argument has been transformed into assessing the truth of the premises. Indeed, Johnson objects to reconstructive deductivism for just this reason: why not, he says, just evaluate the argument as it was without the "missing" premise? From the point of view of evaluation, you could do this, but this does not mean that the missing premise is not conceptually necessary to the argument or a part of what makes the argument a good one, and the fact that you can

evaluate an argument without it hardly seems to be an objection to making an evaluation with it (see Botting, 2016a, Section 4).

That an inference-claim is conceptually necessary follows from the simple fact that the arguer is attempting to give a good argument, i.e., Intuition 3. Let me be a bit clearer, in order to distinguish it from the rejected claim that it is conceptually necessary of arguments as such that they contain inference-claims, and to distinguish what I mean by "completeness" from what I have suggested Plumer probably means by the same term. What I am saying is that it is conceptually necessary of a reconstruction of someone's arguing or reasoning that it includes everything that the arguer or reasoner is relying on for the conclusion to be rational, and if it does not include something then it is incomplete and not really a reconstruction at all. One of those things is the claim that the conclusion follows from the premises. So, it is in virtue of being part of the content of the arguing or reasoning that it is conceptually necessary to the reconstruction, and not because it is conceptually necessary to the argument, that it is also part of the content when that argument is made explicit. We start and end with content, with what is actually argued. This is strictly speaking all that is supported by Intuition 3. But it is enough, which is to say, pragmatics is enough for the claim that the argument necessarily includes an inference-claim—we do not need any claim about the semantics of argument indicators in Intuition 2, which in the end turns out to be irrelevant.

Not that we would be faced with a harmful regress if argument indicators did have an inference-claim as part of their semantics, because argument indicators only have this effect on the argument that is actually made; if we advance the argument "P; so, Q" then the complete first-order argument is "P; if P then Q; so, Q" but this "so" does not lead us to the second-order argument "P; if P then Q; if P and if P then Q then Q; so, Q" because we are not advancing "P; if P then Q; so, Q" as the argument. If we did advance it as the argument then the second-order argument would effectively now become the first-order argument. It is only when "so" is actually uttered that an inference-claim follows from it, and it is only ever uttered once, and so it is likewise only once that we are obliged on the grounds of conceptual completeness to add a further conditional premise. The illative "so" in the second-order argument is just a reporting of the "so" in the first-order argument. So Intuition 2, although it supports a semantic claim, does not support the claim that *all* arguments have an inference-claim as part of their content as a matter of conceptual necessity. Only first-order arguments – the ones that are actually argued – make inference-claims.

Neither of these things imply that the arguer does not think that the premises

minus the inference-claim are not in themselves sufficient to justify the conclusion; on the contrary, it is precisely the expression of the fact that the arguer does take them to be sufficient in themselves. It is epistemologically and evaluatively redundant and may or may not be asserted, but conceptually it is a part of the argument (and needed to accurately represent the inference when that is what we are trying to do). Without it, there is a logical gap and the argument is not complete.

Hence, we need to add an associated conditional. But do we need to keep on adding them *ad infinitum*? By adding a yet further associated conditional we may derive a further argument, but this new argument is not what the arguer was giving and the arguer in no way rests the goodness of either argument on the truth of the new associated conditional. It must, of course, *be* true if the arguer's original argument is a good one, because it is a tautological consequence of the premises and if the argument is good then the premises (including the inference-claim) must be true, but it is still redundant from the epistemological point of view and now also redundant from the conceptual point of view. Grennan would concede that at this point the argument is conceptually complete and we do not need anything more to complete it. However, because he believes that *any* addition of an associated conditional is going to lead to a Carroll-type regress, Grennan insists that it must be necessarily implicit. If Plumer has this kind of motivation for continuing to add associated conditionals [as he seems to when he says «when this is added to the new argument for the same reason—making the inference claim explicit—an expanded argument and corresponding inference claim is generated, and so on, ad infinitum» (2018, p.914)], then I think he is mistaken and is actually disagreeing with Grennan, whose reasons for adopting the NECESSARILY IMPLICIT VIEW are detached from the issue of completeness. *Grennan's Regress* about completeness is not infinite let alone vicious.

Plumer might hope for better luck by resting the possibility of infinite regress precisely on the claim that the inference-claim added is epistemologically required in order to «warrant this inference (the meta-claim being that the premises support the conclusion)». If he does, he is in effect agreeing with what Bermejo-Luque argues with respect to Toulmin warrants. You should not, she says, take the warrant to justify the *step* from Data to Claim, because you would then need a further warrant to establish this warrant (inference-claim), and so on in an infinite regress, the *Warrant Regress*. The warrant justifies the Claim itself—it does not *justify* the step to it but rather *is* the step from Data to Claim, the inference from premises to conclusion, that is represented explicitly in the reconstruction (Bermejo-Luque 2011, p.107). This seems to be equivalent to Plumer's point that what we attribute to an arguer is an inference and not

an inference-claim, understanding the latter as justifying the inference. Bermejo-Luque would agree, the inference-claim for her being merely the making explicit of the attributed inference and not the kind of justifying meta-claim that both Plumer and Bermejo-Luque object to. I also think that when Plumer suggests that a conditional that essentially is identical to the argument is not objectionable, he is effectively agreeing with Bermejo-Luque's solution to this regress. Plumer is operating with a false conception of an inference-claim, which is not the kind of self-justifying meta-claim that he takes it to be.

Of these two motivations then – making the inference-claim explicit and making a self-referential meta-claim – neither lead to an infinite regress; making the inference-claim explicit leads to a regress that is not infinite let alone vicious, and while making a self-referential meta-claim does lead to a vicious regress, this is a false conception of the inference-claim, and the regress is avoided on the conception of the inference-claim endorsed by Bermejo-Luque and, apparently, Plumer himself.

It is notable that Bermejo-Luque does not identify *this* infinite regress with *Carroll's Regress* or take treating the associated conditional as a representation of the inference (or argument) as a way to avoid *Carroll's Regress*. In fact, part of her motivation for using Toulmin warrants (which she takes to be necessarily implicit) in the first place rather than just representing the inference-claim as a logical minimum is to avoid *Carroll's Regress*. The upshot of this is that if this is Plumer's argument then: i) he is wrong in thinking that he is in disagreement with Bermejo-Luque; ii) he has not correctly identified why theorists like Bermejo-Luque (and Grennan) think that *Carroll's Regress* is a threat, and; iii) his solution, insofar as it seems to resemble Bermejo-Luque's, is a solution to a *different* infinite regress. Plumer has confused *Carroll's Regress* with the *Warrant Regress*.

However, I think Plumer might respond in the following way. Bermejo-Luque does not adopt the NECESSARILY IMPLICIT PREMISE VIEW because of the *Warrant Regress* but because of *Carroll's Regress* only because she has misunderstood what the response to *Carroll's Regress* is supposed to be. In fact, *Carroll's Regress* is the *Warrant Regress*; it is only as the result of confusion that the NECESSARILY IMPLICIT PREMISE VIEW is taken to be motivated by *Carroll's Regress as opposed to the Warrant Regress*, for in fact these regresses are the same. This seems to be the upshot when he says at (2018, p.916) that the way to solve *Carroll's Regress* is to treat *modus ponens* as a rule and not as a premise, and this is to be distinguished from treating the associated conditional as a rule and not as a premise—the associated conditional, as particular and topic-specific, is not a principle of inference. But if this is right, I do not see how *Carroll's Regress* is supposed

to raise an objection to treating the associated conditional as a premise at all. As far as *Carroll's Regress* goes, on this interpretation, it says nothing at all about the permissibility or otherwise of adding associated conditionals as premises—if anything, it seems to imply that as long as *modus ponens* itself is treated as a rule then no harm comes from continual addition of associated conditionals, yet it is precisely this that Plumer objects to. The problem only occurs when these associated conditionals are taken to be the kind of meta-claims to which he rightly objects.

So, I think that Plumer is relying rather heavily on the *Warrant Regress*. Bermejo-Luque, Plumer and I (following Botting 2016b, 174 ff.) are, I think, in agreement about *this* infinite regress and the way to avoid it. Plumer, however, confuses this regress with *Carroll's Regress*, or, if not simply confused, has reasons for taking them to be the same, which reasons, however, do not support the NON-EXISTENCE VIEW.

On the other hand, Plumer and I agree completely on the complete irrelevance of the rule/premise distinction and the implicit/explicit distinction (following Botting 2016b, p.177-78; Botting 2017) as helping to solve *Carroll's Regress*. It seems to me to be clearly absurd. Can some terrible problem emerge just by making something explicit, and made to vanish again by leaving it implicit? This seems to me like magical thinking, to be word-magic, or perhaps we might say symbol-magic. The NECESSARILY IMPLICIT PREMISE VIEW is false. But I do not see how the RULE VIEW is any better: if we can question whether an added premise expressing *modus ponens* is true, why can we not question whether a rule expressing *modus ponens* is valid? I wonder how much this actually differs from the NECESSARILY IMPLICIT PREMISE VIEW, since its plausibility seems to derive entirely from the merely stipulated fact (not to be found in Carroll's paper) that whereas Achilles writes down premises in his book he does not write down rules, which is only another way of saying that it is not made explicit. Perhaps the belief is simply that in general we do not ask this question because of the way in which we know *modus ponens*, that, for example, we do not have some kind of occurrent representational state that represents *modus ponens* but only something like a disposition. But it still remains the case that we *could* have such a belief, and that if we do there is no way of proving that it is true without presupposing that it is true, just as there is no way of proving the Principle of Induction without presupposing it.

My view about the right way to interpret Carroll's argument follows Botting (2017) and I will not repeat it here: the important point for my purposes is that *as the regress is commonly understood* the problem it presents is a pseudo-problem to which the RULE VIEW and NECESSARILY IMPLICIT PREMISE VIEW are pseudo-solutions. I think the most

fundamental mistake people make with regard to this argument is in thinking that it presents a problem requiring a solution. It doesn't. Someone sufficiently dense or tortoise-headed enough *can* continue to doubt the validity of *modus ponens* for as long as he draws breath and potentially forever, and if he does there is not much you can do about it, as any attempt to prove it logically will presuppose it. These are just facts. The infinite regress is a genuine possibility and any measure that turns a genuine possibility into an impossibility will for that very reason be wrong. The regress on which Plumer's whole case rests is not a vicious one, as I will now hope to illustrate. Consequently, Plumer's argument collapses because its main assumption – that we have to avoid *Carroll's Regress* (as it is commonly understood) – is false.

Does the mere fact that if we continue to add associated conditionals we will end up with an argument with an infinite number of premises make the regress vicious? Plumer (2018, p.194) shows more sensitivity than most that not every infinite regress is vicious. It is vicious, he says, when it is impossible to make progress. To put it another way, infinite regresses are only vicious when we have to traverse them. But even vicious regresses are not always problematic in the sense of setting us a logical puzzle. There is only a puzzle when it seems that we actually have traversed the infinity and have reached a terminus, for then the puzzle is: given that there is an infinite regress behind us, how did we get here?

Achilles, if he actually thinks his argument would not be good without the addition of the conditional, might be faced with this puzzle: he takes himself to have a justified belief that his conclusion follows from his premises and is true, but if, in order for this belief to be justified, he must *antecedently* have an infinite number of justified beliefs, then he cannot understand or explain why he is justified in believing this and may come to doubt that he was ever justified at all. But I do not think that Achilles is in this position; he does not take the conditional to be a needed premise in his original argument and is not claiming that his original argument requires himself to have *antecedently* grasped the new argument that he gives. Achilles grasps the validity of the original argument but adds the premise in a mistaken attempt to prove the validity of his original argument and the logical principles its validity relies on. Generally, whichever argument in the regress it is whose validity Achilles does grasp, this does not depend on his having antecedently grasped the validity of arguments deeper into the regress. There is nothing vicious here.

There are perhaps three ways in which a regress of arguments might be vicious, that is to say, three things that someone might be trying to make progress in and failing to make progress in because of the infinite regress. There might be a regress in

justification, in evaluation, or in reconstruction. I will argue that the only reason why we might fail to make progress in any of these is if what we add is ampliative and goes beyond what was already there, and that is not the case when what we are adding is an associated conditional.

We have just considered the first: a regress in justification. This might come in two forms: we might ask whether the arguer is subjectively justified or whether the arguer is objectively justified.

As far as objective justification goes, the regress you get is perfectly virtuous. If the original argument is valid, then adding the associated conditional is only to add a tautological consequence of the premises, and adding a tautology cannot change what is valid/justifying into what is invalid/unjustifying or vice versa. If the original argument is not valid then adding the associated conditional will be an ampliation, and furthermore an ampliation that by definition will change an invalid argument into one that is valid. But although it is now valid this new argument will not justify the conclusion because the added conditional is false (or, I would add, because its antecedent is not relevant to its consequent). Adding the associated conditional cannot turn a good argument into a bad one or a bad argument into a good one. If one of the arguments in the regress propositionally justifies its conclusion, they all will (by the rule of contraction), and if it does not, they all will not. This is the case generally with adding tautologies, and the simple fact is that we can keep on adding tautologies for as long as it amuses us to do so, because we do not thereby change what is in the deductive closure of the premises. This observation is at the core of Botting's STRAIGHTFORWARD PREMISE VIEW: the regress you get by continuing to add tautologies, even if this goes on forever, is not vicious. Also, once you have expressed premises that entail this deductive closure, you have expressed the argument itself completely, as far as I can see.[7]

As far as subjective justification goes, you could, as I suggested earlier Achilles might, have a good argument but think that it is not good without its associated conditional added. But if, at that point, you do grasp that this new argument is good, you are not relying on adding a yet further conditional for your judgment. Once you believe that you have a good argument, you know also that the same judgment would apply to any arguments deeper into a regress (again, this follows by the rule of contraction). If, however, you continue to fail to grasp the goodness of any argument, then there is no logical puzzle to solve, because, remember, there is only a logical puzzle if it is assumed

[7] So, even if we accepted premise (1) of the *Completeness Argument*, I still do not think its conclusion follows, because (6) does not follow from (5). The sense in which we are leaving out part of the argument's content if we do not make the successive inference-claims explicit is completely innocuous.

that you have reached an end point of the regress, e.g., a judgment that the conclusion follows from the premises, so if that judgment is never made there is never any problem. Like the Tortoise, you can continue to go on forever or until the realisation dawns that by adding tautologies you are never going to get from an argument that does not justify its conclusion to one that does.

The regress will also be vicious if evaluating an argument would require evaluating an infinite number of arguments. Yet we do evaluate arguments. How is this possible? The answer here is the same as for objective justification. The only argument you ever have to evaluate is the original one. If the original argument is good, they all are, and will be evaluated as such. If the original argument is bad, they all are, and will be evaluated as such. This is not, as Plumer (2018, p.915-16) seems to think, because classical logic is monotonic and so when you have a valid argument adding premises will always give you another valid argument, as this is true irrespective of whether what you add is tautological or ampliative. Monotonicity preserves validity but does not preserve argument goodness. Suppose that you add as a premise of a valid argument the negation of the conclusion: you will still have a valid argument, but I would hesitate to call it a good one. Note that this cannot happen when what you add is a tautological consequence of the premises, and the negation of the conclusion cannot be such a consequence, since it cannot be in the deductive closure of a set of premises if the conclusion is, which it must be on the assumption that the argument is valid. It is not the property of monotonicity that is at issue but the property of contraction.

The regress will also be vicious if reconstruction of the argument requires an infinite number of premises, since such a reconstruction could never be completed. What makes an argument “complete”?

One possible answer is that the argument contains no “logical gaps”. This seems to be the motivation for adding the inference-claim in Grennan (1994) and Ennis (1982), and the source too of Plumer’s appeal in one place to the need to make the inference-claim explicit. But the argument we get does not contain a further logical gap. There are at most two arguments in this regress.

A second possible answer would be if the argument contains what might be called a “justificatory gap”, which might occur when what you add itself requires justification. This, I think, is what motivates Plumer, in particular when in (ms., 2) he describes the threatened regress as a regress of self-justification. But as Bermejo-Luque argues the inference-claim is *not* something that justifies or needs to be justified, it just *is* the representation of the relation between the premises and the conclusion; certainly, a

higher-order conditional is not going to justify it, because it has been derived from the original argument! Plumer seems to endorse this argument without realising, perhaps because of the Toulminian terms in which Bermejo-Luque expresses it.

A third possible answer would be if the argument reconstructs an inferrer's chain of inference. As we have already seen, there are general concerns that a *Taking Condition* on inference could lead to a vicious infinite regress. But if it does lead to such a regress, correct reconstruction of the chain of inference will, *ipso facto*, be equally infinite and equally vicious. Hence, this is not an argument against making inference-claims in the argument as such. But I doubt it is this kind of consideration that troubles informal logicians. The fact is that, at a certain point, an arguer does take a certain set of premises to be sufficient, relevant, and acceptable, and is relying on these facts. As far as reconstructing the argument goes, the fact (if it is a fact) that the judgment that they are sufficient may require one to be at the end of an infinite regress is beside the point. The judgment has been made, and the aim is only to represent this fact, which it can do by adding an inference-claim, a relevance-claim, and an acceptability-claim as premises.

It is issues about the completeness of the argument that Plumer raises against Botting's view. Plumer mistakenly thinks that Botting's view is motivated by the fact that valid arguments are monotonic. Thus, Plumer (2018, p.915) says:

> [D]eductive validity is of course monotonic, "that is, if you start with a deductively valid argument, then, no matter what you *add* to the premises, you will end up with a deductively valid argument" […] There is no question that adding *C*, *D*, etc. to Carroll's *A-B-Z* argument still gives you a deductively valid argument. Botting (2017, p. 35) contends that if you add *C*, *D*, etc. here, "it is arguable that these are not different arguments, since they each have exactly the same informational content." Botting further holds that in the absence of informational ampliation, "it is no problem at all that there could be an infinite number of premises." At a certain level of abstraction, this seems true.

Of course it is true that adding a premise cannot turn a valid argument into an invalid argument, but it can, however, increase the informational content of the premises since it can change their deductive closure and will do when it is ampliative; after all, that is just what it means to be ampliative. This change in informational content will not occur when what is added is a tautological consequence of the premises; all you have done in this instance is make explicit something that was already in the deductive closure and in that sense 'contained' in the premises. The point is not restricted to valid arguments, as Plumer's point about monotonicity is. While adding a premise to a valid argument cannot make it invalid *irrespective of whether it is tautological or ampliative* because of monotonicity, adding a premise to an invalid argument can make it valid if what is added

is ampliative but not if it is tautological, for the obvious reason that if it is tautological we have not changed the deductive closure. Arguments' having the same informational content is not the same as both being valid, as Plumer seems to suppose here.

Plumer (2018, p.915) continues:

> Needless to say, however, there would be problems if, for example, one was engaged in trying to accurately reconstruct an argument that when stated, was expressed simply along the lines of *A-B-Z*.
>
> The serious mistakes arise in taking any of this to indicate that each of *C*, *D*, etc. is, as Botting claims, "not an ampliation, but is part of the argument's content and hence part of the argument" (p. 38). In the first place, this appears inconsistent: how could *C*, *D*, etc. be part of the argument's content yet add nothing to that content (no "ampliation")? Moreover, by definition, if a whole has parts, and some parts are missing or not included in the whole, the whole is *incomplete*. This means that for Botting, Carroll's *A-B-Z* argument would be incomplete without the inclusion of *C*, *D*, etc. And since there appears to be nothing relevantly special about Carroll's *A-B-Z* argument, such a view as Botting's would mean that at least every deductively valid argument is a vicious infinite regress.

I think that some of the misunderstanding here is down to what we take as a premise. In «an argument that when stated, was expressed simply along the lines of *A-B-Z*» the explicit premises are obviously A and B. If we take the premises as specifically what the arguer expresses, then C and D are not premises, as Plumer says. Is the argument complete without them? Or: have we reconstructed the arguer's reasoning correctly if we leave them out? Are they needed premises? Influenced by Intuition 3 (and to a lesser extent by Intuition 1 and Grennan's arguments), I think that C is a needed premise (not logically needed, but needed for conceptual completeness of the reconstruction and not, as I suspect Plumer is thinking, because it is a conceptual requirement of arguments as such), and therefore a proper reconstruction of the argument is A-B-C-Z, as this represents what the arguer is relying on. D is *not* a needed premise, and as we have already noted C itself is not needed from the epistemological or logical point of view and is, from those points of view, redundant—C is there because the arguer justifies drawing the inference from A and B to Z on the grounds that he believes C, and nothing similar motivates adding D as there are no logical gaps left to fill after C has been added. If Plumer thinks that there are (and I think he does) this is only because he thinks that C has been added because of being a conceptual requirement of arguments as such, and I have argued that this is not our motivation for adding it in the first place. Of course, as long as C is true then the argument will propositionally justify its conclusion and be evaluated as valid whether the arguer believes C or not. But the task is not simply to give the logically minimal argument but to reconstruct the arguer's reasoning, making explicit everything the arguer relies on to rationalize his conclusion, and C is one of those things while D is not. Could we not make C explicit without making it a premise? Perhaps. But

I concur with Plumer's assessment when at (2018, p.915) he says that it is difficult to see what an assumption of the argument is if it is not a premise. However, the idea that making it a premise leads to some dreadful result is magical thinking.

However, from the point of view of the NON-EXISTENCE THESIS it is a side-issue whether C and D are really needed. The real point is whether, if we *do* add C and D, we are set off on a vicious infinite regress. I say that we are not: whether we *have* to add C and D in order to complete the argument or for any other reason, or not, we *could* do so precisely for the reason that they are contained in the original premises (at least if the argument is valid). In that sense they are "part" of the original argument because part of its informational content, although redundant parts, precisely because, as non-ampliative, they do not change its content (i.e., its deductive closure). But there is nothing problematic, either logically or otherwise, about redundancy, and there is no mystery in how something redundant can be «part of the argument's content yet add nothing to that content» and it in no way follows that without those (redundant) parts, or without making those premises explicit in the given argument A-B-Z, the argument is "incomplete" as Plumer claims. So, we could keep on adding redundant parts whether they are "needed" or not, and we could have an infinite regress, whether the argument was deductively valid or not: the point is that this regress, although infinite, is not vicious, because we are only adding tautological consequences of the original premises. Plumer ends by saying: «the underlying problem appears to be a failure to distinguish between what *can* be added to a deductively valid argument (in virtue of monotonicity) and what *must* be added (such that otherwise the argument is incomplete)». It should be obvious by now that monotonicity has nothing to do with it, and although I think that C must be added in order for the argument to be complete and to correctly reconstruct what the arguer is arguing, C will just be a redundant part from the point of view of justification or evaluation. I think that Plumer's judgment that it is incomplete is based on the mistaken idea that informal logicians are committed to its being a conceptual truth about arguments (in the abstract logical sense of "argument") that they contain an inference-claim. In my view the argument is incomplete without C, but it is not incomplete without D, and I see no reason why D is "needed" for the sake of completeness or for any other reason. D does not fill any logical gap in A-B-C-Z. Moreover, it is not the kind of self-referential meta-claim to which Plumer rightly objects.

Thus, what I earlier called the STRAIGHTFORWARD PREMISE VIEW is correct, and relies on the observation that when you add tautological consequences of the premises, no matter how many you add, how often you add them, and how many arguments you get as a result, nothing vicious occurs, and to add an associated conditional to a valid

argument is to add a tautological consequence of its premises. When you add the associated conditional to an *invalid* argument there *is* an ampliation, but only one; thereafter, since what you get after adding the associated conditional will be valid, we will be back in the case of adding associated conditionals to valid arguments. It would only be if there were an infinite number of ampliations that there would be a problem, that we would fail to make progress, and there is not.

Since Plumer's argument against the existence of inference-claims is that supposing their existence leads to an infinite vicious regress, it fails, because the regress you get is not vicious. *Carroll's Regress* (on the usual understanding of it), though infinite, is not vicious, and *Grennan's Regress*, which Plumer seems in some parts to be motivated by, is not even infinite, let alone vicious. Plumer's argument succeeds when the inference-claim is interpreted in one particular way, namely as a "self-referential meta-claim", because the *Warrant Regress is* vicious, but we do not have to interpret it that way, as Bermejo-Luque has argued, and as Plumer seems to agree without realising it.

So much for inference-claims, then. What about other standards of argument goodness being included in the premises? The STRAIGHTFORWARD PREMISE VIEW is a view about premise *sufficiency*: adding a tautological consequence of the premises will not make the premises any more or less sufficient. Will the added premise also be *acceptable* and *relevant*?

I do not see how any plausible account of premise *acceptability* can allow it to be possible that the tautological consequence of what is acceptable can itself be unacceptable; in fact, it seems to me to be a condition of adequacy on any account of premise acceptability that it does not have this result.

But what about the acceptability-claim itself? Suppose we add as a premise "These premises are acceptable" and ask "Is the statement that these premises are acceptable itself acceptable?" Could one say "I accept that *p* but I do not accept that I accept that *p*?" This can be further reduced to "*q* but I do not accept that *q"* by making *q* mean "I accept that *p*". This does not seem to be rational. This does not mean that it is *impossible* to Tortoise-like keep on asking this question at higher and ever higher levels, but doing so does not produce any vicious kind of regress. In accepting that (if *q* then *p*) I accept that I accept that (if *q* then *p*).

What about premise *relevance*? Here it is not so clear, because you can logically derive a proposition from a set of premises (i.e., a tautological consequence of the premises) without those premises being in any way relevant to that proposition, and it is

precisely because you can do so that relevance is added as a further condition of argument goodness in the first place; relevance is one feature that is not necessarily going to be preserved by the fact that what is added is non-ampliative, and irrelevance can logically ensue upon relevance. But is it possible of two associated conditionals at different levels of the regress – for these are what we are supposing to be added in this specific instance – that we would judge one to be relevant and the other irrelevant?

I doubt it, but I do not find it clear. In any case, it would not be *because* we judge the higher-order conditional to be relevant that we judge the lower-order conditional to be relevant. The relevance-claim represents the content of a judgment and does not need to be derived from anything or rely on anything further [for more detailed discussion see Botting (2013)]. There is no regress in justification or evaluation with respect to relevance-claims.

What about the relevance-claim itself? Is there really any reason to ask whether the relevance-claim is relevant? It seems to me obvious that it is: a relevance-claim will always be relevant to the argument, even if in fact the relevance-claim is false.[8] Perhaps Plumer is worried once more that the relevance-claim is a self-justifying meta-claim, but there is no reason to treat it this way. The relevance-claim just expresses our relevance-judgment and does not require any further justification. Relevance-claims at higher levels in no respect justify those at lower levels; any relevance-claim that is justified, wherever in the regress it occurs, will be justified by a relevance-judgment.

5. CONCLUSION

The result is that no vicious regress occurs by including an inference-claim, a relevance-claim, or an acceptability-claim, and they should be included as part of a correct reconstruction of someone's attempt to give a good argument, and not because, without these claims, the argument would not *be* good (i.e., it would not propositionally justify its conclusion) or could not be evaluated as good. They are redundant from the point of view of the argument's goodness, but they are conceptually required nonetheless when our aim is to reconstruct an arguer's argument because of being part of what the arguer takes to rationalize his or her conclusion. The same goes for relevance-claims and acceptability-claims. Inference-claims, relevance-claims, and acceptability-claims necessarily exist in the kinds of arguments at issue in this paper, namely those that

[8] Plumer anticipates this kind of response in another place but seems to respond to it just by changing the example to something other than relevance! I find this perplexing. Also, it is because the relevance-claim can be false that adding it does not magically make the premises relevant to the conclusion.

reconstruct acts of arguing or inferring.

But let's suppose that this is false and that inference-claims can be treated as optional extras; for example, let's set aside what I have said about conceptual completeness and consider only justification and evaluation, in respect to which the added premises are – consistently with the SUPERFLUITY VIEW – redundant. Plumer's argument aims to prove not only that these claims are not needed but that they are actually harmful when included as premises. This is a much stronger claim than the SUPERFLUITY VIEW, and is strongly counter-intuitive, amounting practically to magical thinking. Plumer argues for it on the grounds that it leads to *Carroll's Regress*, though often his reasoning seems to accord with thinking that it leads to the *Warrant Regress*. But the *Warrant Regress* is solved (by Bermejo-Luque) on the grounds that the inference-claim is just a representation of the inference and not the kind of self-referential meta-claim to which Plumer rightly objects; she draws back, however, from including it explicitly as a premise on account of *Carroll's Regress*, taking the NECESSARILY IMPLICIT PREMISE VIEW. However, if the STRAIGHTFORWARD PREMISE VIEW is right no harm comes from including it as a premise, as the regress to which it potentially leads is not vicious.

Conclusion: Plumer's NON-EXISTENCE VIEW is false. Though superfluous in several ways, inference-claims not only can exist but must exist when the argument is a reconstruction of somebody's inference or somebody's act of arguing because without it the reconstruction is incomplete because leaving out something that the arguer is relying on. Perhaps not all arguments are such reconstructions, and arguments that are not reconstructions may not include inference-claims. Simply as abstract objects, an argument can be complete without any inference-claim or associated conditional added to it. If he attributes to his antagonists the thesis that it would not be complete because of a conceptual truth about arguments as such (and there is circumstantial evidence that he does) then I think that Plumer is mistaken, and none of the intuitions commit those having those intuitions to as strong a conceptual claim as this. Instead they claim at most that when we argue, an inference-claim is included in the content of what we are arguing even if not used explicitly by the arguer as a premise. Note that I am not saying that when we argue we *assert* the inference-claim that we make implicitly. But we could assert it if we wanted to without any dreadful consequences. We do not need to claim, as for example Bermejo-Luque does, that it *must* be left implicit and *never* made explicit or asserted, as the regress that follows from doing so is entirely virtuous.

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