

The Logical Evaluation of Arguments

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Abstract In this paper I will defend the controversial thesis that all argumentation in natural language can be reconstructed, for the purposes of assessment, as a deductively valid argument. Evaluation of the argumentation amounts to evaluation of the logical coherence of the premises. I will be taking the pragma-linguistic theory of Bermejo-Luque as an initial starting point.

Keywords Argument evaluation · Deductivism · Pragma-linguistics · Bermejo-Luque

1 Bermejo-Luque's View on Argumentation as a Speech-Act

In (2011b) Bermejo-Luque starts from a fairly standard view (such as is exemplified in pragma-dialectics) of argumentation as a speech-act complex. One aspect of this speech-act complex, essential both to its epistemic normativity (Botting 2010) and to how we go about assessing the argumentation's goodness (or so I will argue), is that arguers are trying to resolve the disagreement on the merits of the better argument. This implies that arguers may not give arguments that they believe to be bad. For example, even where modesty forbids their being certain that their premises and conclusion are true, and that the conclusion is true because the premises are true, they must nevertheless believe these things in order for the illocutions involved in the speech-act complex to be carried out felicitously. In pragma-dialectics this is a regulative condition, so when arguers do not obey this dictum by trying to win irrespective of what they take to be the better argument, we

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need not say outright that they are not arguing, but we can say that they are not arguing well, even by their own lights.

Bermejo-Luque diverges from this view in three principal ways: (i) it is a *constitutive* condition of this speech-act complex that it aims at justifying a target-claim by adducing reasons; (ii) argumentation is composed largely of sub-acts of *adducing reasons*; (iii) it is a *constitutive* condition on the sub-acts of *adducing reasons* that the speaker believes the associated material conditional “If Reason, then Conclusion.” Let me gloss this.

Bermejo-Luque’s (i) is her analogue of the pragma-dialectical condition described above, but in contrast to that view where it is treated as a regulative condition it is in her view a constitutive condition. This has the consequence that arguers that are not giving what they consider to be good reasons—reasons that justify the target-claim they are arguing for—are, literally, not arguing at all. There are speech-act complexes that we might loosely classify as argumentation or as argumentative that do not strictly qualify as argumentation on this account, of which I will give some examples in a while. To a large extent I think that these ‘quasi-argumentations’ can be evaluated in the same way as argumentations themselves; if something qualifies as a fallacy in an argumentation, generally speaking it would also be a fallacy in a quasi-argumentation, and conversely we can identify fallacies in quasi-argumentation by asking ourselves the counter-factual question “Were this a genuine argumentation, would this move be fallacious?”¹ Of course, in some dialogues committing fallacies may not matter or even be beside the point, but I would maintain that they are fallacies nonetheless.

Bermejo-Luque’s (ii) usefully introduces the speech-act of *adducing a reason*. The conditions of satisfaction for adducing a reason go beyond those of a mere assertive. However, they are like assertives in that these conditions of satisfaction are all internal—felicitous performance of the speech-act depends on being in the right psychological state, but it does not require that the world be a certain way; for example, that the world be the way those representational psychological states represent the world as being. In short, an arguer’s reason for what he is arguing for may not, *as a matter of fact*, be a reason, or at least not a good one, but he may still felicitously perform the speech-act of *adducing a reason*. An arguer may be mistaken but not dishonest.

Bermejo-Luque’s (iii) claims that a condition of satisfaction for adducing a reason is belief in the conditional. Evaluation of the argumentation consists, at least to some extent, in evaluating this conditional. This does not mean that evaluating the speech-act of argumentation requires constructing a theory of mind for the speaker, for by performing a speech-act that represents itself as being that of adducing a reason for a target-claim the speaker is committed to the conditional “If Reason, then Conclusion” whether they believe it or not. If the speaker does not

¹ This is why it does not really matter for pragma-dialectics that few real arguments actually conform to the norms of a critical discussion; the rules of critical discussion are still norms for those real arguments, no matter how habitually they may be flouted in real argumentation, or how seriously we take those rule-violations. Even though it may not be the arguers’ aim, we still say that resolution of the disagreement on the merits of the best argument is the aim of the critical discussion as such and hence that its rules can be taken as regulating argumentative behaviour and that arguers are criticizable if they violate those rules.

believe this then although the viewpoint argued for may have a cause, and may even be caused by (belief in) the reason, it is not *based on* the reason. It is commitment to the conditional that is at least the first precaution in distinguishing the rational from the non-rational, that identifies what presents itself as a genuine instance of argumentation but is not. I do not think that this is a condition of satisfaction of quasi-argumentation, and consequently I do not think that such a speaker is committed to it.

Here are some examples of quasi-argumentation: people sometimes “argue” by using premises they are not themselves committed to, either because they think the premises they use will be effective for the particular audience they seek to persuade, or perhaps just in an exploratory fashion to critically test a certain viewpoint. The view I am putting forward has the consequence that this is not really arguing at all, and I am prepared to accept this consequence. In the case of persuasion the typical case is that the speaker believes the conditional but does not believe its antecedent, i.e., the premises. That is to say, he believes the truth of the target-claim would follow from the adduced reasons were those reasons true, but they are not true. Another way closely related to persuasion is explaining to an audience why (because it is a consequence of their other commitments) they should be committed to a certain viewpoint and are rationally criticizable if they are not. Or if this viewpoint is something absurd or something they would not believe, then the premises from which the commitment is shown to follow must be at fault. Here the speech-act is a kind of evaluative judgement, or justification thereof. Again, typically the speaker will believe the conditional but not the antecedent. However, I don’t think that believing the conditional is necessary in these cases, so we should not talk of a commitment to the conditional here; the speaker may believe that the inferential practice used by the audience is fallacious, and indeed by showing them that they get caught in an internal inconsistency when they reason this way the speaker may be attempting to illustrate its fallaciousness or trying to show why a particular reason is not a good reason. When used in an exploratory way, instead of “arguing” we might talk of establishing a viewpoint’s rational credentials or describing what other information is needed to do this, or more simply as presenting an argument without making any implicit claims as to whether it is good or bad, perhaps to prepare to ‘mention’ the argument.

In such cases speakers may not believe the conditional, and there is no commitment to the conditional implied by the speech-act as such; it is not a condition of satisfaction of these speech-acts that the speaker believe the conditional, and showing that the speaker does not believe the conditional does not demonstrate any infelicity in the speech-act. The case is different with the speech-acts of adducing reasons, and by extension of arguing proper.

Now, I would defend (iii) on conceptual grounds of what it means to be reason, and in particular what it means for a belief to be *based on* a reason. The *basing relation* is the relation between a belief and the reasons that a believer has for them. It is a controversial issue that I cannot discuss here what kind of relation this is: causal, logical, or some combination of the two. What seems fairly uncontroversial is to say that if belief in a reason p causes another belief q (in a subject that does not already believe q) quite independently of the p ’s being true being a reason for q ’s

being true, believing q is not rational. Cases of hypnosis, for instance, where the mind has been programmed to move automatically from one belief to the other, do not qualify as rational persuasion, even were the triggering belief to be, in fact, a good reason. One way of making this distinction is to say that in cases of rational persuasion the arguer must be committed to or believe dispositionally in the material conditional “If Reason, then Belief”, for it is this that associates the truth-values of the reason and the proposition believed, and it is this that is lacking when there is only a causal relation between the two.² The material conditional expresses the *basing relation*.

So, when an arguer argues for a conclusion, they intend that the audience believe the conclusion on the basis of the reasons the arguer has given, and it is precisely because it is so based that, in the arguer’s appraisal, the audience’s belief qualifies as rational; if the arguer thought that the reason had succeeded merely causally without the connection between the truth-values of the reason and conclusion doing any work, the arguer would not think that the audience have a rational belief or have been persuaded rationally. So the arguer must be committed to the proposition that if her reasons are true, then her conclusion is true. It need not follow that the conclusion logically or conclusively follows from the reasons, or that the arguer must be absolutely certain that the conditional is true, but she must believe it and be committed to it even so. If she does not believe it and is trying to ‘induce’ commitment in her audience to this conditional then (since this commitment amounts to a constitutive condition) she is not arguing at all but trying to induce a belief by non-rational means.

Although she does not mention the *basing relation*, Bermejo-Luque’s appeal to the associated material condition (2011b) has a very similar ring to it. I say that this is because the target-claim must be *based on* the reasons adduced for it. But I also say that there are two ways in which we may justify a target-claim: propositionally or subjectively.³

² This does not rule out there being a causal relation between the two—I am inclined to think that the *basing relation* is actually a causal relation, but not any causal relation can so qualify. The point is this: imagine someone who gets himself to believe things by taking advantage of such causal relations. Does he thereby believe the associated conditional? Now there may be *another* causal relation that causes belief in the associated conditional, but the question is whether the initial causal relation itself somehow normatively commits the person to the associated conditional. It does not, and generally speaking the person who causes himself to have beliefs this way does not believe this conditional and nor can such belief be attributed to him even dispositionally, the simple reason being that the truth-values are causally irrelevant here.

³ Another term that often gets used here in place of subjective justification is doxastic justification. I don’t think it matters which is used here. What I want to avoid including are certain kinds of state-given reasons for belief—such as it being useful to have such a belief—that might crawl in when we start to talk about justifying a belief in contrast to justifying what is believed, i.e., the propositional object of the belief. However, we can certainly say that when q is subjectively/doxastically justified by p , this can be glossed as belief that q causally depending on belief that p , without it being the case objectively that the truth of q follows from the truth of p , although the arguer must think that it does, at least as long as he takes his believing that q to be rational. However, his belief that q may *be* rational (even when he does not think it is) in the objective sense because it is the logical consequence of other beliefs the arguer may have, though not of the proposition that the arguer takes it to follow from, viz., p . We can say in this case that q is propositionally justified. Obviously, q can be propositionally justified irrespective of whether the arguer takes q to be subjectively justified or not (and whether the arguer takes his believing that q to be

I justify it subjectively when the reasons I provide would, in my own view, make rational the audience's belief in my conclusion. But what counts as rational here is an entirely subjective matter. We might make some very general claims that any conception could be expected to satisfy: appealing, for instance, to the emotions of my audience or to self-evidently invalid inference-patterns would generally be considered non-rational, but even then it is possible that I believe appeals to certain emotions and to certain invalid patterns of inference to be rational. Of course, the arguer will believe that her conception of rationality is correct and that both forms of justification (from the arguer's own point of view applied to her current argumentation, the distinction between these forms being impossible for her to make) are satisfied by the same argumentation; hence, it would not be wrong to say that the arguer *aims* at justification in the propositional sense.

However, since it is the arguer's acts of arguing that Bermejo-Luque is talking about, and the conditions of such acts depend on internal states such as what the arguer believes is rational, it seems that subjective justification—that is, justification from the arguer's point of view—is the kind implicated in Bermejo-Luque's account.⁴ In other words, being mistaken about my justification does not make my speech-act of adducing a reason infelicitous, for felicity only requires that I be subjectively justified, yet it is still valid to criticize me for using as reasons propositions that are not propositionally justified because this amounts to saying that I have failed to hit what I was aiming at, viz., reasons that propositionally justify my conclusion. If I argue by giving mistaken reasons then I am still arguing, but if I argue by giving "reasons" that I do not actually believe to be reasons (and are not such that I would believe "If Reason, then Conclusion.") then I am not arguing at all, except in a degenerate usage of the word "argue." This is the result of (i) above which has the result that the speech-act conditions being discussed here are treated as constitutive rules and not regulative rules; if they were regulative rules only then the speech-act would still be an act of arguing, albeit an "unhappy" one.

Evaluation of the argumentation then consists at least in part on evaluating this conditional. As far as this goes, Bermejo-Luque and I are on the same page; we part company in how we think this assessment is to be carried out. For reasons that will be discussed in a moment, Bermejo-Luque takes the conditional to be a Toulmin warrant whereas I take a broadly deductivist approach, on the basis of the observation that when we consider the reasons together with the conditional we get a deductive argument

Footnote 3 continued

rational or not), and also the propositions that the arguer takes to subjectively justify q may or may not be propositions that propositionally justify q . There is always when subjective justification is being discussed an implicit reference to the beliefs themselves over and above their propositional objects, but this should not be taken to imply that state-given reasons can doxastically justify a belief, despite the fact that it can make it rational in some sense (in the sense, perhaps, of Pascal's Wager).

⁴ Believing that the reason is good is a constitutive condition of adducing a reason, but I must admit that I am undecided whether being *justified* (from one's own point of view) in believing the reason to be good is itself a speech-act condition or a higher-level assertibility condition. If it is the latter, the view I present here is a simplification.

Reason
 If Reason, then Conclusion
 Therefore, Conclusion

that is valid. Combining the reason with the conditional will, then, always result in a valid argument, but obviously not all arguments are good. Evaluating an argument cannot, then, be simply a matter of evaluating its validity, but I will argue nonetheless that it is a logical evaluation. I will explain why this does not have the result that all argumentation is good.

It is not deductive validity as such that functions as a norm but rather logical coherence. For instance, if an arguer believes that the *tonk* operator, or affirming the consequent, or appeals to emotion, are rational, then there is nothing to prevent him from explicitly including them (e.g., the introduction and elimination rules of *tonk*) in the premises, and this argument is deductively valid. But considerations of deductive validity nonetheless show us that such premises lead to contradictions and should be rejected for that reason.

As mentioned earlier, argumentation and its sub-acts depend for their illocutionary success only on being subjectively justified, where this in turn is relative to the arguer's own conception of rationality. We can now see that conceptions of rationality can also be criticized from a third-person point of view as leading to logical incoherence; the arguer is subjectively justified but it is denied that their argument (despite being deductively valid) propositionally justifies the conclusion⁵: the reasons adduced do not support the target-claim.

This, in a nutshell, is at least the nucleus of how we should evaluate arguments. We may also include in this evaluation assessment of the arguer's entitlement to his premises, but this is because we suppose that the arguer is attempting to present a deductively sound argument (whether he is aware of this or not, his commitments form a deductive argument), i.e., one where the premises are true. Deductivism is not inconsistent with this kind of assessment.

Bermejo-Luque rejects deductivism because she thinks that the conditional cannot be treated as a premise. Treating it as a premise, she says, leads one into a vicious regress. Put the matter this way: the deductively valid argument that I proposed above only follows on the presupposition that the associated conditional can appear as a premise, but if it cannot, then this deductivist approach will not work. And it cannot: this is supposed to follow from the Carroll regress problem, or something very like it. Instead, we should treat the conditional as a Toulmin warrant and use the Toulmin model, evaluating the goodness of a warrant according to field-variant standards being very different from evaluating the goodness of a premise according to deductive standards. I will argue that bringing Toulmin into it is an

⁵ In fact, if an agent's subjectively justified beliefs lead to contradiction, I think this is evidence that they were not all subjectively justified after all—the agent only thought they were, either by not considering all his beliefs together but only a subset, or by not considering all their consequences. The latter raises the tricky problem of whether justification should be closed under entailment. I think that the dialectical tier addresses precisely that issue, and hence that dialectical closure can, after all, be taken as the operationalisation of an epistemological norm. This must be the subject for another time.

unnecessary distraction and defuse her arguments that the conditional cannot simply be viewed as a premise (the logical minimum).

I am not the first to argue that Bermejo-Luque's account can be given a deductivist interpretation. Considering this as some kind of *reductio ad absurdum* of her account, Pinto (2011, p. 314) claims that her account collapses into deductivism. I think that Pinto is right but do not consider it a defect but as an argument in favour of the logical evaluation of argumentation—there is nothing absurd about deductivism. In short, the concept of a reason and of being *based on* a reason itself has the consequence that all argumentation is deductive. In fact, we have already seen that it turns out to be not only deductive but deductively valid. Of course, it is still the case that in evaluating the argument we have to evaluate the acceptability of the conditional, and this will depend on how well the evidence confirms it.

2 Bermejo-Luque's Views on Vicious Regress

Bermejo-Luque's defence against Pinto's claim, and her argument for treating the conditional as a Toulmin warrant, depends on her claim that otherwise there will be a vicious regress. The purpose of this section is to argue against there being vicious regresses involved in treating the associated conditional as a premise.

Later I will argue briefly (as I do more comprehensively in Botting 2015) that the Carroll regress problem is not a logical problem at all, and if conceived as a logical problem it is a pseudo-problem because the regress it threatens is not at all vicious. The regress is supposed not to follow when the associated conditional is treated instead as an inference-rule, or as a Toulmin warrant construed as an inference-rule. Bermejo-Luque (2011b) also treats it as a Toulmin warrant but in an unorthodox way, rejecting the more common view [expressed, for instance, in Pinto's (2011) criticism of her views] that it should be treated as an inference-rule. Being treated as an inference-rule rather than a premise does nothing, she seems to say, to avoid the regress.

There is also a different regress that we need to consider, and this involves the requirements for being an argument or justification. On the likely presupposition that an argument is not conceptually complete if it still contains 'logical gaps', we would never be able to give a complete argument because adding a missing premise to fill the 'logical gap' will create a new argument with another logical gap. It might be thought that filling the logical gap with a rule rather than a premise might solve this problem, but it is not so—a rule is a 'gap-filler' just as much as a premise. The way out of this regress, Grennan (1994) argues, is twofold. First of all, he notes that every argument has the associated conditional as an implicit premise and this premise *is* a gap-filler. The generalization (i.e., the warrant or major premise) used to support it is not a gap-filler—it *does not belong to the argument at all*. Secondly, he argues that the associated conditional is necessarily implicit. I agree with the first part but not the second.

Consider the first part. At first this seems strange—there is obviously nothing wrong with "All ravens are black; this is a raven; therefore, this is black." The

question is what we should do with the major premise. Grennan's response is that major premises in general have the logical function of backing the associated conditional that would apply in its absence, namely "If this is a raven, then this is black": the major premise is not a reason for the truth of the conclusion but is backing for (because it logically entails) the associated conditional that is already implicit in the argument "This is a raven; therefore, this is black."⁶ The premise/rule distinction does nothing to solve the problem, and I would say it does nothing to solve the Carroll problem either.

Pinto (2011, p. 315) quotes the following passage from Bermejo-Luque (2011b, p. 107) as giving the reasons for this rejection:

[...] if warrants justify the inferences, they should be reasons for the corresponding inference-claims or inference-motivations. However, if warrants "justify" our inference-claims in this sense, every argument would contain another argument, namely, the argument "warrant, so inference-claim": after all, justifying is arguing well.

This leads to an infinite regress; therefore, warrants do not justify the inferences and are not inference-rules. Pinto (2011, p. 315) responds that it is "quite arbitrary to suppose that the only way an inference rule can justify the inference from p to q is as a ground for the material conditional 'if p , then q '." I find this puzzling and do not know what kind of way Pinto has in mind. It amounts to saying that there are some general rules or premises that do not function in the way Grennan says. I am at a loss to know how this might be and see nothing arbitrary in making this supposition that seems to follow directly from Grennan's argument. I think that it is possible that Pinto has either failed to appreciate this regress or that he has confused it with Carroll's.

This needs some clarification because it seems Pinto may have made a mistake about what Bermejo-Luque is claiming. First of all, the regress she refers to concerns the completeness of the justification; "every argument would contain another argument" since otherwise there is a gap because we have made a claim that something is justified (the inference-claim) without giving any reasons. This produces a regress of reasons. The way to avoid this is, like Grennan, to note that the logical minimum is always included as an implicit premise and to make this the warrant, and then to note that the logical minimum expresses the inference and therefore does not make any claim requiring further justification (hence the common criticism that it is epistemically redundant; it is, but this does not mean that it is not necessary for the conceptual completeness of the argument). Note that the fact that it is the logical minimum that Bermejo-Luque takes (somewhat idiosyncratically) to be her warrant is essential to the whole enterprise. The more popular conception of warrants as generalized conditionals or, for that matter, any kind of ampliation, will produce regresses if included in the argument. Luckily, Grennan has shown that they are not so included.

Now, since it is a conceptually necessary part of the justification, the logical minimum is involved in justifying the target-claim and Bermejo-Luque does not say otherwise. What she claims is that it does not justify the inference-claim (it doesn't)

⁶ Bermejo-Luque seems to spelling out in greater detail a suggestion made by Grennan (1994) in footnote 7 of that paper.

but is only a representation of it. Let us give as an example “This is a raven; therefore, this is black.” The associated conditional or inference-claim as Bermejo-Luque calls it is “If this is a raven, then this is black.” This is the logical minimum. Let us adopt the more usual course of taking the warrant to be some kind of generalization, plausibly “All ravens are black” in this case. This gives us the deductively valid argument

All ravens are black
This is a raven
 Therefore, this is black

where the major premise “All ravens are black” should, says Pinto, be considered as an inference-rule rather than a premise. But note that the argument above is not the one Bermejo-Luque seems to be talking about; in writing “warrant, so inference-claim” she seems to mean the argument

All ravens are black
 Therefore, if this is a raven, then this is black

The conclusion here follows from the premise by logical entailment and not by the warrant or inference-rule as such. Here “All ravens are black” is straightforwardly a premise, and furthermore we are committed to having this argument, *irrespective of whether in the original argument the warrant is treated as an inference-rule or a premise*. So, any attempt to avoid regress by treating a warrant as different from a premise is shown to be futile. This result is quite general and follows equally for the Carroll regress—we can turn any inference-rule into a premise simply by conditionalizing the conclusion on the minor premise.

In Bermejo-Luque’s terms, what Pinto and others call the warrant (a generalized conditional akin to the major premise discussed by Grennan) does not justify the inference but backs (by making assertible) the inference-claim that expresses the argument and is for Bermejo-Luque constitutive of an act of arguing.⁷ To argue by parallel, we can always ask for a justifier of the minor premise, and of whatever

⁷ For instance, in the argument

Socrates is a man
 Socrates is mortal

the associated conditional is “If Socrates is a man, then Socrates is mortal.” When we fill in the missing premise in the following way

All men are mortal
Socrates is a man
 Socrates is mortal

we find that the major premise entails the associated conditional, the latter being a substitution-instance of the former. Grennan (1994) concludes that major premises have a different logical function in arguments, namely as backings for the associated conditional that is already there implicitly. Since you do not have to give the backing of the minor premise in order for the argument to be complete, nor do you need to give the backing of the associated conditional.

justifies the justifier, and so on, but we do not say that all these justifiers are a part of the original argument; this infinite expansion is not implicit in the argument itself and is not given or required to be given when the argument is. The same goes for the inference-claim. We can ask why the inference-claim is justified, and if in response we give a warrant in the usual sense of the term we can go on to ask what backs the warrant, but this is to give other arguments for the premises and not to expand the one already given as if it were merely an abbreviated or elliptical expression of the real argument. The real argument itself is not required to make explicit the reasons for the inference-claim to be true anymore than it is required to make explicit the reasons for the minor premise to be true. Effectively, this means that we can in some sense miss out the warrant in Toulmin's original sense of that term and miss out the backing completely as being an integral part of the argument without which the argument is incomplete. Bermejo-Luque concludes that the inference-claim (i.e., the logical minimum) can itself be considered to be the warrant and does not require backing or further justification. Warrants do not justify the inference-claim but simply express it, and this is done by the logical minimum itself rather than a warrant in the more familiar sense of the word.

What is important, then, is that the warrant not be considered as a gap-filler, and in Bermejo-Luque's view treating the warrant as an inference-rule is still to treat it as a gap-filler. The problem with gap-fillers (at least, when they are ampliations) is that when added the original argument is changed and has implicit in them a different inference-claim, which would in turn be a gap-filler that changed the argument, and so on *ad infinitum*—one could never succeed in giving a complete argument. For Toulmin and those who follow him, arguments are incomplete without data, a warrant, and its backing. The above analysis says that the backing is not necessary, even implicitly, for something to be an argument.

Furthermore, since the warrant is simply the associated conditional and as such expresses what the arguer is doing when she adduces the data as a reason for the conclusion—which is to say that it is a condition of the speech-act of adducing a reason—one could dispense with the warrant as well; the 'warrant' is always already there in the argument and the illocution but can be made explicit in the model (Bermejo-Luque 2011a). One does not felicitously perform the speech-act of adducing a reason if one is not committed to the conditional or, further, if one is not subjectively justified in believing the reason to be true. I do not say that the reason must be true or that it must propositionally justify the target-claim; these would be external conditions, and although some speech-acts (e.g., baptisms) require external conditions to be satisfied for their successful performance it does not seem plausible that adducing reasons is one of them. Viewing argumentation as a speech-act complex implies that it is not a condition of argumentation that reasons be true and to be good reasons for the target-claim, but does imply that it is a condition that the arguer justifiably believes them to be true and to be good reasons for the target-claim. Quite likely one does not justifiably believe the reason to be a good reason for the target-claim unless one believes a more general 'warrant,' which is to treat belief in the warrant as one way of satisfying a felicity condition on the speech-act (Bermejo-Luque 2011a, p. 339) and not as parts of or themselves conditions of the argumentation itself.

Note that this regress is a matter of simply what is required in order to give a complete argument and not what is required for some target-claim to be ultimately justified. Thus, it is not the same as the regress that issues from the “Achilles and the Tortoise” argument given by Carroll and to which Pinto possibly assimilates it. The Carroll regress aims to show that target-claims can never be justified to someone who doubts the inferences, for no non-circular justification of those rules can be provided.⁸

Pinto (2011, p. 315) endorses the common view that the way out of this regress is to treat the warrant as an inference-rule or Toulmin warrant. This solution has always seemed to me very unsatisfactory, a mere success by stipulation. What does expressing something as an imperative rather than a declarative really accomplish? Why cannot the same sceptical doubts be expressed over the inference-rule as were over the premises? Toulmin seems to suggest that doubts over the warrant have to be answered by giving its backing. But then we can argue all over again about how the backing backs the warrant, and so on. Since one can always transform a rule into a premise by conditionalizing the conclusion on the premises (as Bermejo-Luque does in the extract quoted by Pinto) this solution is shown to be completely illusory. Bermejo-Luque’s alternative conception of warrant is not, however, an alternative solution to Carroll’s problem, and nor do I think is it meant to be.⁹

Grennan’s argument (1994) was that major premises backed the inference-claim that was already part of the argument, albeit implicitly, and as such were no more a part of the argument itself than were the reasons for the minor premise. The inference-claim (associated conditional) itself is a part of the argument. But now Grennan seems to conceive of another regress similar to Carroll’s that by making the associated conditional explicit we produce a new argument with a new associated conditional and that this latter conditional fills a logical gap in the new argument. This is puzzling because once the first associated conditional has been added there are no logical gaps left to fill; only in the first iteration is the associated conditional a gap-filler, thereafter any associated conditionals can alternatively be considered as backings or as simply irrelevant.

Grennan’s position now seems slightly curious, for he seems to concede that the conditional *is* a gap-filler but endorses a view he attributes to Govier (1987, p. 96) that it is necessarily implicit. Whether something is implicit or explicit is surely not a logical distinction and it is illegitimate and even unintelligible to demand that

⁸ Carroll’s argument thus establishes for deduction something similar to what Hume established for induction. By adding a Principle of Uniformity we can turn inductive arguments into deductively valid arguments, but we have to appeal to induction to establish a Principle of Uniformity, and this is circular. Equally, Carroll might say, even if it was a deductively valid argument, the only way we have of establishing validity is by appealing to deduction, and this is equally circular. Of course, the difference is that the Principle of Uniformity is synthetic and rules of deduction are analytically true, and this is sufficient objectively to justify the conclusion. But subjectively one may still doubt analytic truths, and if one does, then a regress of the kind Carroll illustrates can start. This is a regress of subjective/doxastic justification.

⁹ Although Thomson (1960) seems to saying something similar with regard to Carroll’s problem when he says that *modus ponens* is a comment on the argument, rather than a part of it. I think this is a false dichotomy: it is both (Botting 2015). Thomson’s claim reads rather like Bermejo-Luque’s claim that the inference-claim is just a representation of the inference.

some part of the argument should not be made explicit. Grennan, like Pinto, connects this to Carroll's sceptical argument, but despite similarities the issue is actually quite different; whereas Carroll's argument was an epistemological problem about justification [whose moral, I argue in Botting (2015), is that there is a distinction between propositional and subjective justification and that there can be regresses in each, and not that there are different logical functions to be performed by different parts of the argument], this is a conceptual/formal problem about what it takes for something to be an argument. Bermejo-Luque (2011b) also places a great deal of weight on this argument because it is finally by appeal to this and not to any of Toulmin's arguments that she adjudicates against the enthymematic reconstruction of arguments that is the mainstay of deductivism.

So, what happens, logically speaking, if we add to the argument "P, so C" the conditional "If P, then C"? Obviously, we make the deductively valid argument "P; if P, then C; so, C". What if we now add "If P, and if P, then C, then C" as the Carroll regress would have us do? This can be treated either as two arguments—the conclusion of the first being the conditional "If P, then C"—or as one. If it is two arguments then the argument "P; if P, then C; so, C" is complete on its own and we have just represented the inference-claim in a way that is unnecessarily complicated.

What happens if we treat it as one argument? Actually, nothing much since, unlike the generalized conditionals that major premises or warrants are normally considered to be, this new argument does not amplify on the old one. We unnecessarily produce a lot of propositions, but nothing follows from that. It is no problem at all that this can go on infinitely, any more than it is a problem that the deductive closure of a set of premises is infinite. I repeat: Carroll's regress is not best understood as a problem of logic or logical form but shows only the possibility of subjective doubt over the formal validity of an inference as well as over the truth of a premise. As applied to logical form, the regress is entirely harmless. Toulmin (1958, p. 225) describes the kind of situation involved nicely without, however, connecting it to Carroll's problem. Someone asked to provide a proof of some mathematical fact must set out a set of steps, each of which is individually a simple calculation, which goes from undisputed facts to what he wants to prove. He concedes that it is still possible to doubt the correctness of the calculation, or that it has been performed correctly. Nonetheless, it is not necessary, for example, to break the calculations down even further. This would only be "a formality, for how could one be confident that a man who questions '5 times 7 is 35' will accept '1 and 1 make 2'? Ordinarily, when this stage is reached, there is no more room for 'proof' or 'grounds'" This, it seems to me, is the situation that Achilles finds himself in in his argument with the tortoise, and is, as Toulmin seems to say here, something he just has to live with.

In conclusion, there is no epistemological problem because the warrant does not justify the inference-claim, and there is no logical problem because infinite regresses are not logical problems.

Nevertheless, Bermejo-Luque is impressed by Grennan's argument for a harmful regress and takes it as a reason to reject deductivism. Perhaps Bermejo-Luque is concerned to avoid the following kind of problem: making an inference-claim is a part of what a speaker is doing when they argue, but if it is adduced also as a reason,

then there will be another inference-claim. This seems to be so. If I argue “The streets are wet; if the streets are wet, then it has been raining; so, it has been raining” then the inference-claim will be “If the streets are wet and if the streets are wet, then it has been raining, then it has been raining” will be the inference-claim. But apart from a certain lack of informativeness (more useful information being still hidden in assertibility-conditions) there is nothing wrong with this. By adducing “the streets are wet” and “if the streets are wet, then it has been raining” as reasons has the speaker *ipso facto* adduced the inference-claim as a reason? The speaker *could* adduce the inference-claim as a reason without a doubt, but only by performing another speech-act that she need not perform. Adducing reasons is not in itself to adduce the inference-claim as a reason, although expressing the inference-claim is part of what she is doing when she adduces reasons. Hence, I see no harmful regress here.

3 Conclusion

The arguer may succeed in bringing about belief in a proposition in spite of herself in a number of ways. She may just ‘trigger’ belief in a way that does not involve the truth-value of what is believed. In these cases the belief is not *based on* the reason she gives for it, which is indicated by the fact that the believer is not brought to believe in the associated conditional. Commitment to the associated conditional is a necessary condition of being rationally persuaded; without the arguer’s commitment to the associated conditional the arguer is not trying to justify a target-claim, and without the audience’s commitment to the associated conditional they do not rationally believe the target-claim. It is the *basing relation* expressed by the associated conditional that is necessary for the rationality of both believing the target-claim and also the argumentation itself. This gives an epistemological interpretation of and theoretical justification for Bermejo-Luque’s claims about the speech-acts of argumentation.

All arguments in natural language—that is to say, those that can be distilled from genuine speech-acts of argumentation—are deductively valid because commitment to the associated conditional, embodied by the inference-claims and implied by the acts of adducing reasons, makes them so. The same does not follow for arguments as such, which I would claim can be divided along the deductive/inductive, valid/invalid, and strong/weak lines. Either way, evaluation will often require evaluating inductive strength of the acceptability of a premise where it cannot be shown to be false because of leading to logical incoherence. Deductivism, on this construal, does not then rule out appeal to inductive norms of goodness.

Similarly, because these are norms of justification generally, we can also evaluate how well the arguer argues, in so far as we can assess whether he or she really is entitled to the premises she uses and to the belief that her conclusion really follows from them. I would distinguish between evaluating the argumentation and evaluating an arguer’s performance, though I believe it is possible to combine the two things. I do not believe that it is the task of the theory of appraisal to determine how effective an argument is for a particular audience—the goodness at issue is

rational goodness, and the basing relation gives this an epistemological underpinning. Although I cannot argue for it here, I think that a similarly epistemological underpinning can be given for assessing the discharging of dialectical obligations (as in a dialectical tier) as a part of evaluating whether the arguer is really entitled to his premises.

Interpreting arguments in natural language not as deductively valid enthymemes but instead on the Toulmin model makes no real advance. Of course, one may still choose to use the Toulmin model, just as one may choose one model over another, but there is no reason why one has to; regress arguments aimed at showing this having been found less than compelling.

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Compliance with Ethical Standards

Conflict of interest None.

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