

The non-existence of “inference claims”

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ABSTRACT: Some believe that all arguments make an implicit “inference claim” that the conclusion is inferable from the premises (e.g., Bermejo-Luque, Grennan, the Groarkes, Hitchcock, Scriven). I try to show that this is confused. An act of arguing arises because an *inference* can be attributed to us, not a meta-level “inference claim” that would make the argument self-referential and regressive. I develop six (other) possible explanations of the popularity of the doctrine that similarly identify confusions.

KEYWORDS: argument identity, associated conditional, Lewis Carroll, monotonicity, rule of inference, self-justifying arguments, suppositional reasoning, Stephen Toulmin

1. INTRODUCTION

It is widely believed that all arguments make an implicit “inference claim” that the conclusion is inferable from the premises. I do not think that this is true, and the purpose of this paper is to attempt to show that it is not. After trying to better see what the view is in section 2, in section 3 I develop a number of possible explanations of its popularity. I find that each explanation points to confusion that when cleared, removes motivation for the doctrine and leaves it as involving a vicious infinite regress.

2. WHAT ARE “INFERENCE CLAIMS”?

Perhaps the most succinct contemporary expression we read of the view in question is Leo and Louis Groarke’s (2002, p. 51): “Every argument assumes that the premises warrant the conclusion.” Others who hold this view include Scriven (1976, p. 84), Grennan (1994, p. 187), Hitchcock (1998, p. 19), and Bermejo-Luque (2011, p. 90). Hitchcock (2007, p. 2; 2011, p. 210) sees the idea as going back to the ancient Stoic logicians, specifically, Diogenes Laertius, who says that the argument-indicator term ‘since’ appearing at the beginning of a sentence “guarantees both that the second thing follows from the first and that the first is really a fact” (VII.71)

[<http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0258%3Abook%3D7%3Achapter%3D1>]. Alternatively, the idea is sometimes cast in terms of the arguer, rather than the argument, making the assumption or “implicit inference claim.” For example, Hitchcock (2011, p. 191) maintains, with respect to argumentation inferences, that “the arguer implicitly claims that the conclusion of each constituent argument follows from the reason or reasons from which it is drawn.”

Cast either way, the point is apparently supposed to be obvious, because it is usually not otherwise defended. Bermejo-Luque is an exception. She says that it is because an “implicit inference-claim can be attributed to us...that a mere transition from a cognitive input to a cognitive output counts as an act of reasoning, and merely putting forward a couple of claims counts as an act of arguing” (2011, p. 90). Whatever its defense or lack thereof, the view has

become entrenched in informal logic to the point where it sometimes even seems to be regarded as a matter of descriptive definition rather than theory. Grennan says (1997, p. 69): “Consider an argument utterance symbolized as ‘ A , so B ’. By definition, the inference claim is ‘if A then B .’” Furthermore, Grennan contends that the inference claim is “necessarily implicit” as follows: 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.¹ 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 (p. 69). In company with others, Grennan thinks that the way to avoid this regress, which is akin to the one identified by Lewis Carroll (1895), is simply to neither treat the original assumption/inference claim as a premise nor make it explicit (cf., e.g., Govier, 1987, pp. 96-97; Bermejo-Luque, 2004, pp. 174-175).

One should want to avoid this regress because it is vicious, as even the name *regress* suggests: Any alleged *progress* made in explaining or accounting for anything disappears in the infinite argumentative structure. Its quantitative extravagance is not a cost worth paying (cf. Nolan, 2001, e.g., pp. 536-537). In contrast, no such point applies to a benign infinite series, for instance, the fact that every counting (or natural) number has exactly one successor counting number. Representing this series enhances our understanding; it accurately depicts, rather than bloats, ontology.

In his brief but seminal paper Carroll describes an infinite argumentative regress, which can be symbolized as follows (the arrow for ‘if-then’), keeping interpretation to a minimum:

$A: (\forall x)(\forall y)(\forall z)((x = z) \& (y = z)) \rightarrow (x = y)$ [“Things that are equal to the same are equal to each other.”]

$B: (a = c) \& (b = c)$ [“The two sides of this Triangle are things that are equal to the same.”]

$C: (A \& B) \rightarrow Z$

$D: (A \& B \& C) \rightarrow Z$

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$\therefore Z: a = b$ [“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 assumption/inference claim to which Grennan and company refer 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. And again, their point is that the way to avoid this regress is to neither treat the original assumption/inference claim as a premise nor make it explicit.

¹ Grennan himself does not discuss this point. Hitchcock, inexplicably as far as I can see, expresses a denial of it: adding the “material conditional with the conjunction of the explicit premisses as antecedent and the conclusion as consequent...as an extra premiss does not make any previously invalid argument valid” (2000, p. 6).

3. CRITICISMS

However, it is hard to see what an assumption of an argument is if not a premise (cf. Plumer, 2017, esp. pp. 474ff.), 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—whether enthymematically or not—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 (some of which may be implicit); it is not claimed to be inferable. The use of an argument-indicator term such as ‘so’, ‘therefore’, or ‘since’ means that the arguer is inferring; contra (e.g.) Grennan (1997, pp. 69-70), 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). Perhaps the difficulties this idea encounters are to be expected in light of other paradoxes of self-reference, e.g., the liar paradox, which concerns the claim ‘this statement is false’, and Russell’s paradox, which concerns the set property of being self-membered (although this connection will not be explored here). It is not because an *inference-claim* can be attributed to us’ but rather it is because an *inference* can be attributed to us “that a mere transition from a cognitive input to a cognitive output counts as an act of reasoning, and merely putting forward a couple of claims counts as an act of arguing.” There is nothing for such an inference claim to do here (well, except cause trouble); it has no explanatory value. Furthermore, neither arguments nor inferences have a truth-value; rather, they are valid or invalid, or cogent or not. Hence, the view that we make an implicit inference claim simply by arguing or inferring represents us as doing something we are not doing—making a claim that is true or false.

The view that we make an implicit inference claim simply by arguing or inferring, or that “every argument assumes that the premises warrant the conclusion,” is so widely held that subscription to it demands explanation. Below I offer six (additional) possible explanations. Each involves confusion that when cleared, removes motivation for the view (as in failing to see that the inference does the work attributed to an inference claim) and leaves it as implicating a vicious infinite regress.

First, deductive 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” (this standard definition is from Sainsbury, 1991, p. 369). 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. 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. To this Botting has replied (personal correspondence), “*C* and *D* are redundant, but are part of the content for precisely that reason!”

We could go around and around, but 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).

Second, there is no doubt that by abstraction every argument has what is called an ‘associated’ or ‘corresponding’ conditional, in which the antecedent is the conjunction of the argument’s premises and the consequent is the argument’s conclusion (e.g., *C* for Carroll’s *A-B-Z* argument). Per above, such an abstraction is in no sense part of the argument. However, confusion may creep in when considering the fact that an 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*.² 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. I might believe all sorts of things relevant to my argument that I choose not to incorporate in it. Believing is not claiming, yet in some (nonlogical) sense believing is *assuming*. Could that simple fact be the ultimate source of confusion?

Third, the idea that the way to avoid a Carroll-type regress is simply to neither treat the postulated assumption/inference claim as a premise nor make it explicit is a different point than—though possibly confused with—the idea that the way to avoid the regress is not to treat rules of inference as premises, which many have held, beginning at least with Russell (1937, pp. 35-36) and Ryle (1950, pp. 306-307). For example, in discussing Carroll’s regress, Govier almost interchangeably uses the phrases “associated conditional” and “principle of inference” (1987, pp. 96-98). But a rule of inference, e.g., Modus Ponens or Simplification, is a general, topic-neutral principle that defines and licenses a specific pattern of reasoning or type of inference. The putative assumption/inference claim referred to in the Groarke & Groarke dictum that “every argument assumes that the premises warrant the conclusion” is not a rule of inference and accordingly the dictum is not a generalization about rules of inference; rather, for any particular argument, it is the associated or corresponding conditional (treated as incorporated into the argument) with content specific to the argument. And since the general idea of an implicit inference claim—that the conclusion is inferable from the premises—could apply to any argument of any form or pattern, it certainly does not define any such thing.

Fourth, it might be objected that in order to identify an argument, one must identify premises, conclusion, and its inference claim. Of course, the first two of these three are unexceptionable. Regarding the third, consider, for example, the argument ‘it is widely held among population *S* that *p*, therefore *p* is true’. Is this a piece of fallacious *ad populum* reasoning, or a decent argument from authority or inference to the best explanation? The answer will depend in part on whether the inference claim is that the premises conclusively support the conclusion or that they inconclusively support it (Matthew McKeon raised this objection in personal correspondence). My response is that no doubt, determining the type or strictness of the implication relation in the associated conditional abstraction is required in order to identify an argument. Such a determination is facilitated by a broad set of indications, including the use of modal terms (such as ‘must’, ‘probably’, ‘possibly’), context, and arguer behavior. It remains

² While it is true some hold that even conscious reasoning is “blind,” i.e., is “reasoning that does not involve your having any belief that your reasoning’s conclusion follows from your basis” (Dogramaci’s definition, 2016, p. 889), it is not clear that conscious reasoning and arguing are the same thing. Moreover, in arguing against the postulation of blind reasoning, Valaris (2014) points out that its primary—and mistaken—motivation is thinking that such a belief (“that your reasoning’s conclusion follows from your basis”) would be a premise in a Carroll-type regress. For a fine summary of current work on such issues, see Kietzmann (2018, especially section 1).

however, that although the arguer is committed to the associated conditional, in no sense is the associated conditional a claim that is part of the argument.

Fifth, in standard contexts a phrase on the order of ‘it follows that’ does appear to make the meta-claim that the premises support the conclusion, in contrast to argument-indicator terms such as ‘so’, ‘therefore’, or ‘since’. However, unlike what is alleged about its trouble-making counterpart, the meta-claim here seems explicitly made. This suggests that such phraseology is a holdover from suppositional reasoning contexts, because the basic form of suppositional reasoning is: ‘Suppose p . It follows that c ’, where neither p nor c is asserted (to be true). In suppositional reasoning, the claim that p supports c is not a self-referential meta-claim about the argument (leading to a vicious regress) because essentially it *is* (identical to) the argument; the logical relationships between propositions is the sole argumentative and evaluative focus, not also the assertability of those propositions (soundness). This makes suppositional and nonsuppositional reasoning quite different, to the extent that often the propositional elements of suppositional reasoning are not regarded as premises and conclusion (e.g., Dogramaci, 2016; Valaris, 2016). For example, in order to show that there can be no largest integer, one might suppose that arbitrary N is the largest integer (p) and derive a contradiction (c). This is a *reductio ad absurdum*—one type of suppositional reasoning—and of course neither p nor c is asserted here, in contrast to the premises and conclusion of arguments in ordinary nonsuppositional contexts. Now the core idea of conditional proof is: ‘Suppose p . It follows that c . Therefore, if p then c ’, where the conditional *inference claim* ‘if p then c ’ is *unquestionably made or asserted*. A conditional proof or defeasible reasoning analogue may be embedded in a longer piece of reasoning, for example (Cohen, 2010, p. 153):

I suppose that most pit bulls are dangerous. Relying on my background knowledge that Fido is a Pit Bull, I infer by statistical syllogism, that Fido is dangerous. Discharging my assumption, I infer that if most Pit Bulls are dangerous, then Fido is dangerous.

My point is, could the existence of suppositional reasoning, conditional proof, and such phrases as ‘it follows that’ be the source of the (false) belief that implicit inference claims are made by all arguments?

Sixth and last, a number of the authors we have considered cite Toulmin’s notion of a “warrant,” from his seminal book *The Uses of Argument* (1958), as pedigree and support for their postulation of implicit inference claims. I think this misunderstands or misappropriates Toulmin. For instance, Bermejo-Luque says about an argument’s “implicit inference-claim” that “following Toulmin, we can call this link between data and conclusion the *warrant* of the argument” (2011, p. 90). She says Toulmin “claims that the warrant of an argument can always be made explicit as the corresponding conditional whose antecedent is the data and whose consequent is the conclusion of the argument” (p.86). Yet Toulmin explains “propositions of this kind I shall call *warrants*”: “general, hypothetical statements, which can act as bridges, and authorize the sort of step to which our particular argument commits us.” For example, the argument *Harry’s hair is red, so it is not black*, has the “warrant, ‘If anything is red, it will not also be black’” (Toulmin, 1958, p. 98). If Bermejo-Luque’s account were an accurate representation of Toulmin here, he would say that the warrant is ‘If Harry’s hair is red, it is not black’, although Bermejo-Luque does think that Toulmin’s “portrayal” of an argument’s warrant “is defective in some respects” (p.86). So as I said, Toulmin is being misunderstood or misappropriated.

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