# Deductivism as an Interpretive Strategy: A Reply to Groarke's Recent Defense of Reconstructive Deductivism

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ABSTRACT: Deductivism has been variously presented as an evaluative thesis and as an interpretive one. I argue that deductivism fails as a universal evaluative thesis, and as such that its value as an interpretive thesis must be supported on other grounds. As a reconstructive strategy, deductivism is justified only on the grounds that an arguer is, or ought to be, aiming at the deductive standard of evidence. As such, the reconstruction of an argument as deductive must be supported by contextual and situational factors including facts about the arguer. Further, the plausibility of deductivism as a normative thesis is not tied to its plausibility as a descriptive or interpretive thesis.

KEY WORDS: deductivism, argument reconstruction, argument evaluation, standards of evidence, commitment

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## 1. INTRODUCTION

Debates concerning deductivism seem to be a hallmark of the informal logic tradition. The very first issues of the *Informal Logic Newsletter*, published in the late 1970's, were the site of a sustained debate concerning whether inductive arguments could be categorically distinguished from deductive arguments, and if so how (Fohr, 1980a, 1980b; Govier, 1980a; Hitchcock, 1980; Johnson, 1980; Weddle, 1979, 1980).[1] At the time, the prevailing view was that "deductive" and "inductive" marked kinds of arguments. This prevailing opinion, was challenged by Hitchcock who proposed that, following (Skyrms, [1966] 1986, pp. 6-13), "we regard the distinction

[1] For a recent attempt at classifying arguments as deductive or inductive see Bowles (1994), which includes an extensive discussion of the main strategies proposed for doing so.

between deductive and inductive as a broad and exhaustive distinction between types of validity" (1980, p. 9). This proposal that inductive and deductive are "standard[s] for appraising arguments" (Govier, 1980b, p. 4) has since been adopted by many theorists. Machina, for instance, has argued that "inductive logic [like deductive logic] will be defined by reference to its central concepts and rules" and not in relation to a special set of arguments (1985, p. 578). (Johnson (2000, ch. 3), on the other hand, seems content to continue to use the categories inductive and deductive to mark kinds of arguments.) It has also been argued that there are additional evaluative standards of argument – e.g., conductive and analogical (Govier, 1980b, p. 3) – which must be included in any comprehensive theory of argument evaluation.

In the context of this discussion, many questions regarding the role which deduction should play in our theories of argument remain unanswered as open topics of debate. Among these is the question of whether and how deduction can provide a basis for the interpretation of argument. This paper considers attempts to defend deductivism as a reconstructive thesis as they have recently appeared in the informal logic and argumentation theory literature. While these attempts are primarily due to Groarke (1992, 1995, 1999, 2002) I consider Groarke's attempts to be representative of the kinds of arguments which could be offered in defense of reconstructive deductivism. The paper begins with the observation that deductivism can be formulated as an evaluative and as a reconstructive (or interpretive) thesis, and some initial observations concerning the relationship between these two theses. I note that one way of defending deductivism as an interpretive thesis is to assert the correctness of deductivism as an evaluative thesis (section 2). Against this, I argue that there are a plurality of non-equivalent standards of evidence against which arguments can be evaluated, and that not all of these are reducible to the standard of deductive validity (sections 3-5). As such, the thesis of this paper is that the correctness of deductivism as an evaluative thesis cannot be used as justification for deductivism as an interpretive thesis. As alternatives to this, I consider and reject attempts to defend reconstructive deductivism by recourse to theories about the proper semantics of indicator words, and the commitments of arguers (section 6). In place of these approaches, I argue that the interpretation of arguments as deductive must be justified on grounds that involve considerations that are not exclusively evaluative, including contextual and situational features of arguments as well as psychological facts about arguers. In particular I argue that, to correctly interpret an argument as deductive, it must be established that the arguer is, or ought to be, aiming at the

deductive standard of evidence. I conclude (in section 7) that deductivism as an evaluative thesis can and should be justified independently of deductivism as an interpretive thesis.

## 2. DEDUCTIVISM

There is some question as to how the thesis of deductivism should be understood. On the one hand, deductivism is sometimes presented as an evaluative thesis. In this regard, it is sometimes said that deductivism is the thesis that

[D1] "All good arguments are deductively valid" (Groarke, 1992, p. 113).[2]

This is a thesis about the proper standards of evidence by which arguments should be evaluated. Presumably it means that the only acceptable link between the premises and the conclusion of an argument is one whereby it is not logically possible for the conclusion to be false given the truth of the premises. The only good arguments are those for which no counter-example is to be found, irrespective of the plausibility of that counter-example. Defenders of deductivism are quick to add that deductivism includes not only formal but material validity. Formal validity is explained in terms of the form or structure of the argument such that any substitution instance of

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[2] Stove (1970) also considers deductivism as an evaluative thesis, characterizing it as thesis that "all invalid arguments are absolutely irrational" (p. 87). This is roughly the contrapositive of Groarke's thesis [D1] which Stove attributes to Hume (pp. 81-87). This thesis Stove contrasts with the view that "some invalid arguments are more conclusive or reasonable than others; or, that there are different degrees of conclusiveness *among invalid arguments*" (p. 77) – a view which he attributes to Keynes.

Govier similarly considers deductivism to be an evaluative thesis. Yet, D1 is weaker than the theses of classical and methodological deductivism descussed by Govier (1992, p. 393). According to Govier, deductivism asserts that soundness – not validity – is both necessary and sufficient for the cogency of an argument (*ibid*.). D1 asserts only that validity is a necessary condition for argument cogency.

Fox (1999) rejects the definition of deductivism as the claim that "only deductive arguments are any good" (p. 448) on the grounds that the goodness of an argument is relative to its purpose, and some purposes are best met with non-deductive arguments (*ibid*.) Instead, Fox defines deductivism as the thesis that "only deductively valid arguments are sound" (*ibid*.) which would be a trivial truth on the normal usage of "soundness." But, Fox holds the somewhat idiosyncratic view that sound arguments are "[a]rguments (argument-forms) such that given (the truth of) their premises, it is (always) reasonable to accept their conclusions" (*ibid*.) Based on this definition, Fox refutes deductivism by claiming that some sound arguments are invalid. He does this by giving two examples which he claims meet his definition of soundness but fail to meet the usual definition of validity (i.e., the truth of the premises is inconsistent with the falsity of the conclusion). These examples are: (i) One should accept that $p \models p$ (p. 450) and (ii) It is reasonable for me to believe that $p \models p$ (p. 451).

a valid argument form will itself be a valid argument. Material validity is explained in terms of the meanings of the non-logical terms of the argument.[3]

The word "deductivism", though, is not always used to mark this thesis about the standards by which arguments should be evaluated. Sometimes deductivism is construed as the interpretive thesis that

[D2] "natural language arguments should be understood as attempts to formulate deductive arguments" (Groarke, 1999, p. 2).

This is a thesis about how natural language arguments should be understood, interpreted, or modelled. Indeed, it is sometimes explicitly stated as such, as for instance when Groarke writes "I understand deductivism as the view that ordinary arguments are best analyzed as deductive inferences" (Groarke, 1995, p. 139).

For the purposes of this paper, I am primarily concerned with deductivism as an interpretative thesis [D2] (though, as I will note momentarily, the two theses are related). Before proceeding to my own consideration of deductivism, I would like to recognize those objections that are typically raised against it in the literature. The standard objections to deductivism (as identified by Groarke (1992) and Gerritsen (1994) and attributed to authors like Govier (1987)) are three:

(i) Deductivism does not allow for differing degrees of evidential support between premises and conclusions;

(ii) Deductivism either fails to provide an account of fallacies, or provides an incorrect account of fallacies; and finally

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[3] In this respect, both formal and material validity are explained similarly. In both cases arguments are valid on the basis of the meanings of the terms used in them. Formal validity is explained in terms of the semantics of the logical operators (truth-functional operators, quantifiers, and the like), while material validity is explained by the semantics of the non-logical terms.

I specifically want to leave open the question of whether the truth-functional operators (e.g., "→" or "⊃") supply a proper interpretation of our natural-language expressions (e.g., "if ... then...") which they are meant to represent or translate. Also, I want to leave open the question of whether the meanings of these operators is to be given semantically (in terms of truth-tables and valuation-rules) or pragmatically (in proof-theoretic terms of introduction and elimination rules for the use of the expressions). I take it, though, that whatever theory of meaning employed will apply to both classes of expression (syncategorematic and categorematic).

(iii) Deductivism does not provide a defensible interpretive strategy for describing the structure of natural language arguments.

Given my concern with deductivism as an interpretive strategy [D2], I am primarily interested in the third objection on this list. But, in the sections that follow, I deal directly with the first objection - which challenges deductivism as an evaulative thesis [D1].[4] The reason for this is that the correctness of deductivism as an evaluative thesis can be invoked as a reason for its acceptability as an interpretative strategy. Clearly, if [D1] were true - that is, if the only acceptable standard of evidence was that embodied in the rules of deduction - then [D2] would follow as a consequence. So, any discussion of deductivism as an interpretive thesis must consider deductivism as an evaluative thesis.

## 3. DEDUCTIVISM AS AN EVALUATIVE THESIS

One way, then, to justify deductivism as an interpretive thesis is to assert deductivism as an evaluative thesis. Considered as an evaluative thesis, Govier described deductivism as follows. "The crucial point of deductivism is that anything less than a relation of entailment between premises and conclusion is unsatisfactory. On this theory, there are absolutely no degrees or kinds of logical support" (Govier, 1987, p. 23).[5] In this respect, the two questions that deductivism asks of any argument are 1) are the premises of the argument *true* (or, perhaps, acceptable)? And 2) does the conclusion *follow* from the premises (*ibid*.)?

Another way of articulating this second question is this: do the premises give us (as epistemic agents) *rational grounds* for *asserting* or *adopting* the conclusion? This highlights two features of what I will call the rational structure of arguments. Firstly, reasons are understood in a practical sense as reasons *for* either asserting, or assenting to, some claim or belief. To assert a claim, is to put it forth as having met some relevant epistemic standard (e.g., truth or acceptability). To adopt a claim is to accept it as having met some similar standard. This brings me to the second claim: our notion of a reason is explained in terms of evidence. The standards

[4] I do not discuss the second objection in this paper.

[5] I hold this formulation of deductivism in terms of the kinds of evidential support that can obtain between premises and conclusions to be preferable to Johnson's formulation of deductivism in terms of types of arguments. Johnson (2000) offers the following formulation of deductivism: "There is only one type of argument – a deductive argument. All other types of argument are either not really arguments or are reducible to deductive arguments" (p. 60; cf. pp. 42-46). Clearly, one reason to hold that there is only one type of argument would be that there is only one kind of evidentiary connection that can obtain between premises and conclusions.

with which we evaluate arguments are standards of evidence. Taken together, these standards constitute and exemplify our concept of evidence, and when they change, so can our concept of evidence.

The standard that deductivism upholds is that of validity. Informally, an argument is valid if and only if it is not logically possible for the conclusion to be false given the truth of the premises (Groarke, 1992, p. 113). That is, the assumption that all of the premises of an argument are true is inconsistent with the assumption that its conclusion is false; it results in a (formal or material) contradiction. Groarke rightly points out that this standard should not be equated to formal validity; material validity will do just as nicely.[6] Also Groarke rebukes accounts of deductivism that "confuse this notion of necessity [i.e., necessary entailment] with the notion that the conclusion of a deductive argument is necessarily true if the premises are true" (1999, p. 3; cf. Groarke, 1995, pp. 139-140). The concept of necessity that is embodied in deductivism does not imply that the conclusion is necessarily true; rather "it implies that the conclusion of a deductive argument must be *as certain as* its premises. A deductive argument should therefore be described as 'certainty preserving' rather than 'certainty establishing'" (Groarke, 1999, p. 3).[7]

Groarke's point here is well-taken, but his correction of this 'widespread misconception' does not achieve the theoretical goals he takes it to. Having made this correction, Groarke goes on to infer that a purely deductive account of the link between premise and conclusion can be used to represent and preserve relations other than truth or certainty (1999, pp. 4-5).

## 4. STANDARDS OF EVIDENCE

To see the mistake here, it must first be acknowledged that there are a variety of non-equivalent standards of evidence. Rhetorically, arguments can be evaluated purely with respect to their

[6] As such, Johnson's characterization of deductivism as "formal deductive logic" (FDL) whereby the analysis and appraisal of arguments is based upon logical form (plus the truth of its premises) (2000, p. 58) is not precisely accurate.

[7] In this sort of context, certainty must be viewed as an epistemic rather than a psychological property of a proposition. Obviously, without some considerable and perhaps contentious assumptions about the rationality of human reasoners, valid deductive arguments do not preserve certainty understood as a doxastic attitude which a reasoner might take towards a proposition. Valid deductive arguments might neither establish nor preserve an agent's doxastic attitude towards a proposition. For example, it would be quite reasonable to claim that I am not certain of many of the logical consequences of many of the beliefs I have and of which I am certain, simply because I have never even contemplated these consequences. In this sort of context, then, certainty can be thought of as something like a degree of justification that a proposition can have.

*effectiveness* in eliciting assent to, or acceptance of, the conclusion. In a criminal trial, guilt must be established *beyond a reasonable doubt*. On the other hand, in certain civil trials, responsibility or culpability need only be established *on the balance of probabilities*. These are different standards of proof, and an argument which meets a weaker standard might fail to meet a stronger standard.

Indeed, we might decide to employ any number of standards of evidence. One way of characterizing the standard of evidence embodied in deductivism is to say that, accepting the premises of the argument, we should accept its conclusion if there is no counter-example to be found for the argument in question. Yet, any number of other standards of evidence might be articulated in just this way. Consider the following list:

Accepting the premises of the argument, we should accept its conclusion if

- the only counter-examples to be found are highly improbable, or
- the only counter-examples to be found are less probable than the premises, or
- no counter-example has been found yet (it has not been falsified), or
- no counter-example is already to be found amongst our beliefs (coherence).[8]

These standards are given in descending order, so that arguments meeting a higher standard will also meet the lower standard, while arguments that fail to meet a higher standard might well meet a lower standard.

The fact is, then, that there are a plurality of non-equivalent standards of evidence. In view of this, deductivism as an evaluative thesis cannot be accepted on the grounds that there are no other standards of evidence.[9] As a result, deductivism as an interpretative thesis cannot be accepted *a priori* for purely evaluative reasons since arguers might be attempting to meet some lesser standard of evidence in their acts of arguing. For example, it is not justifiable to invoke the Principle of Charity as a justification for interpreting a situated argument as deductive without some additional evidence that the arguers are indeed trying to meet the deductive

[8] Govier (1992, p. 403) offers a similar list of the variety of types of inferential strength which premises can offer a conclusion. Although her list is expressed in terms of the variety of ways in which the associated conditional of an argument (see below) could be formulated, I take her overall point to be very similar.

[9] Johnson (2000, p. 79) appears to make a similar criticism of deductivism when he claims that it fails to meet his fourth adequacy condition for a theory of argument (p. 54) such that the theory of appraisal must be multivalent (pp. 42-46) at least in the sense that it allows for "degrees of logical virtue" and "arguments exist on a continuum from strong to weak, with various points in between" (p. 54). Problematically, to simply state this as an adequacy condition, without first demonstrating that there is, in fact, such a plurality of non-equivalent, non-reducible epistemic virtues an argument can have (i.e., standards of evidence an argument can meet) is to beg the question against deductivism understood as an evaluative thesis (cf. note 5 above).

standard of evidence. Since the arguers might be aiming at some lesser standard of evidence, to apply the deductive standard might easily involve attributing to those arguers a stronger position than the one that they are arguing for, and this would constitute a fallacious misrepresentation of their position.

Deductivism as an interpretive strategy, then, cannot be justified on the grounds that it is the only standard of evidence. Instead, the success of deductivism as an evaluative thesis depends on one or more of the following issues:

(a) whether deductivism represents a standard of evidence to which all other standards of evidence are reducible,

(b) whether arguers are, in fact, attempting to meet the standard of evidence embodied in the rules of deduction (or that they ought to be), or finally

(c) whether deductivism represents a standard of evidence in which theorists ought to take a particular interest.

In the remainder of the paper, I consider each of these options in turn.

## 5. THE REDUCIBILITY OF OTHER STANDARDS OF EVIDENCE TO DEDUCTIVISM

Some arguments for deductivism as an interpretive thesis can be read as claiming that all standards of evidence reduce to the deductive standard. Even though there are other standards of evidence, they can be represented on a deductive model, and as such they are effectively reducible to the deductive standard of evidence. This argument is a modified version of the argument that, since deductivism is correct as an evaluative thesis, it is correct as an interpretive thesis also.

Deductivism [D1] claims is that there is only one type of evidential connection that obtains between premises and conclusions in good arguments: the connection embodied in the standard of deductive validity. The reducibility of other evidential standards to the deductive one is explained in the following way. The "varying degrees of logical support" ( i.e., our different standards of evidence) are not to be explained by "postulating nondeductive relationships between an argument's premises and conclusion" (Groarke, 1992, p. 115). Rather, weaker connections between premises and conclusions can be represented by qualifying either the conclusion, or one or more of the premises (or perhaps also by adding a qualified premise).

Thus, "[t]he relative strength of ... two [different] arguments can thus be explained in terms of the relative strength of their (implicit) premises, and does not require the claim that they assume different relationships between their premises and conclusion" (Groarke, 1992, p. 116). From this, Groarke concludes that "deductivism can distinguish different degrees of logical support, and more or less conclusive reasoning" (*ibid*.), and as such "[d]eductivism cannot be dismissed on the grounds that it leaves no room for probable conclusions" (1995, p. 140). That is, Groarke feels that, while premises can offer differing degrees of logical support to their conclusions, these relationships can be represented in a model which holds that the only relationship between premises and conclusion is a deductive one.

### 5.1 *Deductivism, Truth and Certainty*

Against this, I argue that a reduction of this sort fails to recognize those properties that are actually preserved in deduction. As Groarke says, the deductive standard of validity preserves truth and certainty - it does not establish it. But, it *only* preserves truth and certainty; it is not designed to do otherwise. To see this, consider the following two examples.

Example #1 - Consider a version of Kyburg's (1961) lottery paradox where there are 1,000 tickets in a lottery in which 1 ticket is guaranteed to win. Since we can say of each individual ticket that it is *highly probable* (99.9%) that it will not win, we could deduce (using the usual rules for conjunction and quantification) that it is *highly probable* that no ticket will win. But, we know that this is false; indeed it is certain that one ticket will win, hence the paradox.[10] Notice though, that the lottery paradox cannot be consistently articulated when the expression *true* or *certain* is substituted for *highly probable* in the example. If it is true of each individual ticket that it will not win, then it cannot be true that one ticket is guaranteed to win.

Example # 2 - It is *more likely than not* that a person born in Scotland will have red hair. It is *more likely than not* that a person born with red hair will have green eyes. So, it is *more likely than not* that a person born in Scotland will have green eyes. This argument is clearly invalid. Further, it remains invalid when we substitute qualifiers like *probable*, *plausible*, or

[10] It has been suggested that the lottery paradox demonstrates that the classical (i.e., deductive) account of conjunction or quantification must be revised (Kyburg, 1970).

*likely*.[11] Yet, as with the first example, if we replace the probabilistic qualifiers with *truth* or with *certainty*, the argument becomes valid.

Deductive standards preserve *truth* and *certainty*; they do not preserve *plausibility*, *probability*, or *likelihood*. The deductive architecture fails to preserve the probability of premises even when these are expressed in unquantified terms (i.e., not as statistical percentages) but as qualified terms. As such, qualifying premises will not help deduction to represent probabilistic or plausibilistic arguments in any systematic fashion. Rather to regain this systematicity - indeed to determine how to properly qualify argumentative claims which are less than true or certain in a deductive architecture - we need independent theories of plausibility and probability (whether this it is to be an inductive logic, or a theory of statistics, or something else).[12] But, a modified or qualified deductivism is not up to this job - at least not in any way that is systematizable, and not merely ad-hoc. Indeed it is these ad-hoc rules that will in the end provide the real standards by which probabilistic and plausibilistic evidential relationships are evaluated.

The point here is this. The deductive standard of validity systematically preserves truth and certainty. Yet when this standard of evidence is used to represent properties other than truth or certainty, these properties fail to be preserved. Indeed, any property which is preserved by the deductive standard of validity would be co-extensive with truth and certainty. As such, any epistemic properties, or degrees of justification, which propositions can have that are not co-extensive with truth are not preserved by deduction.

This is not to say that no reasoning or argument which begins from probabilistic premises and ends in a probabilistic conclusion can be deductively valid. Rather, the claim is that probability is not preserved in valid deduction. Instead, a series of ad-hoc rules must be applied (in the form of qualifications to premises and conclusions) in order to allow the deductive system to represent non-deductive standards of evidence. As such, deductivism is no longer able to provide a systematic theory of argument evaluation. This loss of deduction's systematicity is explained by the fact that the deductive architecture does not preserve properties like probability.

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[11] I omit modal qualifiers such as *possible* or *necessary* since we have a well-developed modal logic that is capable of rendering the formal structure or arguments using these terms.

I further omit normative (evaluative) qualifiers like *reasonable to accept* since any criteria for rational acceptance will be given in relation to some standard of evidence.

[12] Perhaps this theory will incorporate - or even be based on - the semantics of probabilistic terms. But, to call such a theory "deductivism" would be merely a matter of words.

This can be seen by the fact that when the application of the deductive standard of evidence is restricted to arguments where truth or certainty is to be preserved, the systematicity of deduction is retained.

This loss of systematicity is not a mere theoretical inconvenience for deductivism. Rather, it is an indication that deductivism [D1] is not doing the job that it advertises itself as doing. That is, it is not providing a set of standards by which the inferential strength of all arguments can properly be evaluated. Instead, deductivism provides a set of standards by which arguments whose aim is to preserve truth or certainty are properly evaluated. When applied to arguments aimed at a lower standard of evidence, deductivism must be augmented by an adjunct set of rules which provide guidelines for how premises and conclusions should properly be qualified. In these cases, it is these rules - not the rules of deduction - which are providing the evaluative standards properly applicable to such arguments. Probabilistic and plausibilistic relationships between premises and conclusions are not properly reducible to deductive relationships between premises and conclusions, because plausibility and probability neither reduce to, nor result in, either truth or certainty.

### 5.2 *Deductivism, Premises and Warrants*

Not only does reconstructive deductivism fail to recognize the properties that are preserved in deduction, it also fails to properly represent the nature of inference warrants as distinct from premises.

One of the strategies employed by the deductivist in reconstructing an argument as deductive is to supply it with missing premises in such a way that the reconstructed argument is a deductively valid argument. As Govier has observed, "[a]ny argument can be supplemented with extra premises in such a way as to make it deductively valid" (1987, p. 25; cf. Groarke, 1999, p. 6). Indeed, there is a mechanical method for the construction of such a premise, which I will call the "associated conditional" of the argument. To construct the associated conditional, simply take the conjunction of all of the premises of the argument as the antecedent of a material conditional whose consequent is the conclusion of that argument. Adding the associated

conditional to the original premises of the argument results in a valid argument.[13] That this can be done is cited by deductivists like Groarke as evidence that any argument can be reconstructed as a deductive argument, and hence that non-deductive standards of evidence can be reduced to deductive ones (cf. Groarke, 1999, pp. 6, 8).

A preliminary objection to this strategy claims that it is not remarkably useful. Previously I observed that deductivism evaluates arguments by considering the truth (or acceptability) of premises, and the logical or evidentiary link between premises and conclusions. But, if any argument can be rendered as deductively valid, then all argument assessment becomes a matter of determining premise acceptability. Yet, as Copi has observed, in general the assessment of premises is part of the task of science not logic (1982, p. 62). One might qualify this claim to say that logic does not help in the assessment of contingent, mutually consistent premises - after all, logic can help to determine premises (or sets of premises) that are logically true or logically false.[14] As such, it is not clear that deductivism has any theoretical resources to offer when determining whether any valid argument should be accepted. Yet, in many cases where the inferential link between premises and conclusion is not overtly deductive, deductivism represents this problematic link as a premise (e.g., the associated conditional). Using this strategy the very same arguments that are flawed because of a questionable inferential link will turn out to be flawed because of a problematic premise (Allen, 1990; Johnson, 2000, p. 67). Thus, it is not at all clear what has been gained by rendering the argument as deductively valid.

Perhaps a more serious failure of this strategy is marked by the claim that it misrepresents the nature of warrants. According to Toulmin's (1958) Data - Warrant - Claim model of argument (see esp. pp. 97-107), the data in an argument are "the facts we appeal to as a foundation for the claim" (1958, p. 97) which is, in turn, the argument's conclusion (*ibid*.). By contrast, the warrant of an argument does not give additional information in support of a claim, but rather supplies a *rule*, *principle* or *inference-license* which legitimates the inferential leap from data to claim (Toulmin, 1958, p. 98). Toulmin claims that warrants can be expressed as "general, hypothetical statements, which act as bridges, and authorise the sort of step to which our particular argument commits us" and have the general form of 'If D, then C' (*ibid*.).

[13] Supplying the associated conditional of an argument is not the only way of rendering it as valid. Indeed, sometimes a more specific premise will do a better job (see, e.g., Groarke, 1999, pp. 7-8).

[14] In speaking of the logical truth or logical falsity of (sets of) statements, I mean to include both the formal (syntactic) and the material (semantic) properties of the relevant statements.

Regrettably, expressing a warrant as conditional statement in this manner gives it the deceptive appearance of an additional premise offered in support of a claim. But, as we have just seen, warrants are categorically different from data. As such, it is only data – and not the warrant – which properly comprise the premises of an argument (Hitchcock, 2003, pp. 71-74).

As Govier has observed (1992, p. 405), whenever the validity of an argument is achieved by supplying the associated conditional, we stand in danger of representing the arguer's warrant - the inference licence that is drawn upon in moving from premises to conclusion - as a premise in the argument. In observing that this move leads to an infinite regress, Lewis Carroll (1895) illustrated how this strategy fails to capture the difference between the role played by the premises, and that played by the inferential link in an argument (cf. Johnson, 2000, pp. 73-75). It is one thing to make explicit the inferential link that is being employed in an argument. This link might be expressed as an inference-licence or a Toulmin warrant. But it is a mistake to render this warrant as a premise in the argument.

## 6. DEDUCTIVISM AS A RECONSTRUCTIVE STRATEGY

So far, I have sought to establish that deductivism as an interpretive thesis cannot be supported on the grounds that it is universally applicable as an evaluative thesis. There are other standards of evidence which are neither equivalent to nor reducible to the deductive standard. Moreover, the attempt to represent these standards in a deductive model has both practical and theoretical problems. Practically it does not contribute significantly to the assessment of the argument, while theoretically it stands in jeopardy of misconstruing the nature of the warrants built on these differing standards of evidence.

### 6.1 *Reconstructive Deductivism: An Issue of Semantics?*

The question now becomes what sources of information are available that might help to settle the question of whether an argument is properly reconstructed as aiming at a deductive standard of evidence. One type of information that we might be able to take directly from the argument itself comes from the indicator words. Groarke (1992) has suggested that the acceptability of deductivism as a reconstructive theory can be settled by asking whether it

properly captures the semantics of the terms we usually employ and understand to indicate premises and conclusions in arguments. Thus, Groarke claims: "[t]he basis of my deductivism is an account of premise and conclusion indicators like 'therefore', 'so', 'hence' etc. According to deductivism, we should interpret such words as an announcement of a deductively valid inference" (1992, p. 114). As such, Groarke says, "[o]ne might construe this difference between deductivism and nondeductivism as a difference between two competing accounts of the meaning of premise and conclusion indicators in ordinary language" (*ibid.*).

An initial problem with this strategy is that indicator words are not present in all arguments. So, we would still require an interpretive strategy for arguments in which indicator words are not employed. A second, related problem with this strategy is that it seems to misconstrue the linguistic function of indicator words. We use the indicator words because our arguments have a certain structure; we do not say that arguments have a certain structure because certain indicator words occur in them (Godden, 1988). Put another way, the criteria for the proper employment of indicator words is given by the structure of our arguments, so we cannot say that the criteria for determining the structure of an argument can be given solely in terms of the occurrence of indicator words. There are two points here. First, there must exist an independent set of criteria for determining the structure of an argument, since it is these criteria that will be relied upon in determining how indicator words are properly used in an argument. As such, these are the criteria that should be primarily relied upon when trying to determine the structure of an argument being reconstructed. Second, any recourse to indicator words in characterizing the structure of an argument must consider not only their occurrence, but the reasons for their use on that occasion (*ibid.*). Arguers who do not correctly use indicator words can give misleading indications as to the real or intended structure of their arguments.[15]

Beyond these initial problems there lurks a larger problem. Despite Groarke's initial claim that the semantics of indicator words should be given by an account of the ordinary use of language, his final account seems to provide a stipulative rather than a reportive account of our use of indicator words. For instance, Groarke limits the testimony of ordinary language users on

[15] The incorrect use of an indicator word might be due, not to an arguer's misapplication of the indicator in a particular case, but to an arguer's misunderstanding of the actual structure of her argument. Insofar as the goal of reconstruction is to provide a representation of the argument that is attributable to some particular author, it is the intended argument - complete with its misunderstood structure - which should be the goal of reconstruction. The fact that the arguer has misunderstood the actual evidential structure of her argument might be an interesting point to raise in the commentary on, or evaluation of, the argument.

this matter in two crucial ways. First, he claims that "it cannot be assumed that ordinary language is clearly committed to one or the other possibility [i.e., a deductive or non-deductive account]" (1992, p. 114). Secondly, Groarke claims that "ordinary linguistic practice is not a sacred cow that cannot be questioned. On the contrary, it is open to the logician to propose alternative accounts of the terms he or she uses if this better suits his or her purposes" (*ibid*.). Yet, these qualifications beg the question at issue. Should we understand the proper use of indicator words as announcing the presence of an argument (i.e., the linguistic act of giving reasons) or should we understand them as announcing that arguers are aiming at a particular standard of evidence (i.e., the deductive standard)? The success of Groarke's interpretive thesis requires that we take the second option, yet his semantic thesis does not justify this choice. Indeed, as Groarke himself admits, a reportive account of the ordinary use of indicator words seems to show that they are vague concerning any particular standard of evidence.

Finally, suppose that we accept Groarke's stipulative semantic thesis that deductivism properly gives our indicator words their "precise meaning which is retained in every context" (*ibid*.) Even if we accept this, the initial hermeneutical problem that faced us still remains: how ought we to interpret those cases where indicator words occur in an argument that is not "transparently deductive" (Groarke, 1999, p. 6) in structure? On a point similar to that which Quine has made (1960, ch. 2), much of the linguistic and behavioural evidence that might be cited to demonstrate that arguers are constructing bad or incomplete deductive arguments could equally count towards the conclusion that they are misusing the indicator words - i.e., that they are not properly employing the indicator words as markers of *deductive* arguments. As such, the interpretive question remains: should our interpretative strategy be that of attempting to repair a bad deductive argument, or should we instead ask what other standards of evidence the arguers might be aiming at?

### 6.2 *From Arguments to Arguers*

So far, we have considered epistemological and semantic attempts to substantiate deductivism as an interpretive thesis. Yet, I have argued that each is unsuccessful in establishing deductivism as an interpretive thesis. In recognizing the failures of these attempts, we have each time been pointed towards the arguers as the source of the information that could authorize our

interpretations of situated arguments. Indeed, Vorobej observes the curiosity of the omission of an appeal to this source when he writes:

> It is more or less standard practice to assume that the author of an argument is the best authority when it comes to identifying the premises and conclusions of his argument. Yet, curiously, time and again, accounts of critical thinking ... fail to address the third question of the strength of the logical link between the premises and the conclusion from the author's perspective. (Vorobej, 1992, p. 106)

What are some of the ways that facts about arguers might contribute to the determination of the structure and content of their arguments? Gilbert (1995, 1997) insists that theorists who hope for accuracy in their reconstructions of argumentative discourse must consider the arguer's goals. By knowing about the arguer's goals, we can learn about the standards of evidence at which they aim and to which they see themselves as committed. Similarly, Vorobej argues that "the classification of an argument as being deductive ought to rest exclusively on psychological considerations" (1992, p. 105). Specifically, Vorobej argues that "[a]n argument is deductive if, and only if, the author of the argument believes that the truth of the premises necessitates (guarantees) the truth of the conclusion" (*ibid*.). Finally, Berg (1987) proposes that we consider the author's intentions, writing that "the structure of an argument (as well as the content) is largely determined by the arguer's intentions. Consequently, extracting arguments from their textual surroundings is a matter of discerning intentions" (Berg, 1987).

### 6.3 *Intentions Versus Commitments*

Within deductivism moves of this sort are strongly resisted. Deductivists frequently claim that the theorist is not obliged to inquire after arguers' intentions (or any other psychological data about the arguer) because it is sufficient to instead study the arguer's commitments.

#### 6.3.1 *Commitment to the Associated Conditional*

Indeed, it is by invoking the notion of commitment that deductivists defend the attribution of the associated conditional to an arguer. Groarke, for instance, writes

> We can see that it is always possible to deductively reconstruct an argument which is not transparently deductive by noting that any arguer is committed to the statement that 'If the premises of my argument are true, then the conclusion is true.' This follows from the implications of the speech acts 'argument' and 'assertion,' for an arguer who argues for some conclusion C on the basis of some set of premises purports to believe both that C is true and that her proposed premises *justify* this belief. (1999, p. 6)[16]

Indeed, Groarke has gone so far as to say that putting forward an argument without being committed to the truth of the associated conditional of that argument "would imply a speech act which is insincere, futile and possibly even incomprehensible" (1995, p. 141). This is the reasoning behind the deductivist claim that the missing premises supplied in a deductive reconstruction "are the implicit basis of ... [the arguer's] inferences" (Groarke, 1995, p. 144). Similarly, some have sought to defend the pragma-dialectical approach to argument reconstruction on the same grounds. For instance, Gerritsen writes that "[t]he pragma-dialectical analysis of unexpressed premisses is aimed at determining the speaker's committments [sic], not at reconstructing the speaker's actual intentions" (1994, p. 41).

Typically, the attribution of the associated conditional to an arguer is justified on the grounds that it is a uniquely minimal commitment. Indeed, the associated conditional is the weakest additional premise that could be added to the original premises of an argument capable of rendering that argument deductively valid. As such, commitment to the associated conditional is construed as especially minimal, and accordingly, the attribution of the associated conditional to an arguer is seen as charitable.

Sometimes, attributing the associated conditional to an arguer is even construed as merely avoiding attributing to that arguer any contradictory beliefs. Now, it must be conceded that if an arguer, A, accepts that the premise(s), P, of an argument is (are) true and that its conclusion, C, is a consequence of its premise(s), then A could not consistently believe the negation of the conclusion, ~C. For just the same reason, it A could not consistently believe $\sim (P \supset C)$ because the content of this belief is logically equivalent to $(P \,\&\, \sim C)$. So, to attribute to an arguer a belief in the negation of the associated conditional is tantamount to attributing to them a belief in the negation of the conclusion, and this is to attribute to them a belief in a flat contradiction. Admittedly, to do this would be especially uncharitable. But, does this mean that the principle of charity alone authorizes either placing the associated conditional among the

[16] Here Groarke cites van Eemeren and Grootendorst, 1992, pp. 30-31. Cf. Groarke, 1995, p. 141.

commitments of an arguer, or directly attributing the associated conditional to an arguer by adding it to his or her avowed beliefs?

I argue that consistency does not commit an arguer to acceptance of the associated conditional, and the principle of charity does not licence the attribution of the associated conditional to an arguer. While an arguer might not believe its negation, he or she might not believe the conditional either. The arguer might be agnostic with respect to the associated conditional, or might not have considered it at all. For instance, an arguer might believe that it is possible but very unlikely that the premises are true and the conclusion false. In this case, the arguer might actually believe the negation of the conclusion is possible, but that the only state of affairs that could bring about the negation of the conditional is so improbable that it is never likely to occur, and that no reasonable person would think that it would, even though there is no contradiction in supposing it. In this case, the person does not believe the conditional, but neither do they believe its negation.

Indeed, there is a larger point hidden beneath the possibility of an arguer's consistent agnosticism regarding the associated conditional. Arguers are only committed to accepting the associated conditional if they are already committed to the deductive standard of evidence - that is, if they are committed to the view that the truth of their conclusion is a consequence of the truth of their premises. Recall the associated conditional is the weakest additional premise that could be added to the original premises of an argument capable of rendering that argument *deductively valid*. Yet given that there are a variety of standards of evidence at which arguers can aim, there are, as Govier has observed, a variety of conditional relationships which can obtain between the premises and conclusions of their arguments (Govier, 1992, p. 403). As such, "[i]f we want to interpret the associated conditional as a material conditional, we can, but then on this interpretation, there isn't such a conditional associated with every argument" (Govier, 1992, p. 404). Because of this, not all arguers are committed to the associated conditional, and not every argument can be properly reconstructed as deductively valid. Arguers who are merely engaging in the activity of giving reasons need not be aiming at the deductive standard of evidence, and hence they need not be bound by the commitments put upon an arguer by doing so.

### 6.3.2 *An Arguer's Commitments*

How ought the theorist to characterize and determine an arguer's commitments? It should be admitted that coherent participation in the activity of arguing does commit arguers to the view that their premises justify (i.e., are good reasons for) their conclusions. But, it does not follow that arguers are committed to the claim that their premises *entail* or *imply* (in a strict, logical sense) their conclusions. As opposed to this, arguers are better said to be committed to claims like the following: my premises are good grounds for my conclusion; these reasons are good ones; my argument meets a certain standard of evidence; or even, if you accept my reasons, you ought to accept my conclusion. Perhaps the weakest standard of evidence is the standard of evidence employed in Vorobej's 'embryonic' argument, where "the premises provide some rational support for the conclusion" (1992, p. 112). The point is that the commitments of arguers ought to be determined in relation to the standard of evidence at which they are (or ought to be) aiming.

Indeed, recall Vorobej's characterization of a deductive argument: "An argument is deductive if, and only if, the author of the argument believes that [D′] the truth of the premises necessitates (guarantees) the truth of the conclusion" (*op. cit.*). Compare this with Groarke's claim that "any arguer is committed to the statement that [D″] 'If the premises of my argument are true, then the conclusion is true.'" (*op. cit.*). Notice that an arguer's commitment [D″] on Groarke's theory has the same content as the content [D′] of the belief that Vorobej uses as the criteria to determine whether or not an argument is deductive. Yet, Vorobej insists that the attribution of this belief to an arguer be made solely on the basis of psychological data about the arguer. Groarke, on the other hand, suggests that we simply attribute this claim to the arguer with no additional inquiry. The only way that such a move is justified is on the assumption that the arguer is already trying to meet the deductive standard of evidence. Yet, this is precisely what is at issue. To say that these deductivist commitments are a consequence of the speech acts we call arguing and asserting is to beg the question. Just as must be done with indicator words, theorists must determine whether words like "argument" are used to indicate the linguistic act of giving reasons, or whether they are specifically tied to some particular standard of evidence - e.g., the deductive standard.

I claim that arguers do not have to aim at the deductive standard of evidence. As such, arguers are not required to believe that it is not logically possible for their conclusion to be false

given the truth of their premises. Rather, arguers must only believe that their arguments offer sufficient support for their respective conclusions when evaluated against the relevant required standard of evidence. The fault with the deductivist's move to considering commitments as opposed to intentions is not intrinsic, rather it is to be found in the content of the commitments attributed to arguers. Arguers are bound by their commitments and their commitments are properly attributable to them. As such, commitments have an important role in the reconstruction, evaluation and criticism of arguments. The question is not whether commitments should have this kind of role in the theory of argument, but rather how an arguer's commitments are to be determined. Deductivists assume a certain standard of evidence as being the only relevant one and attribute commitments on the basis of that assumption. But, it is not justifiable to impute, categorically and *a priori*, the goal of meeting this standard of evidence to all arguers.

### 6.4 *The Limitations of Intentions*

Instead of through such assumptions at the level of evaluation, I argue that determining the commitments of arguers, and the structure and contents of the arguments they transact, must be achieved by turning to data about the arguers themselves. There are several problems involved with the attempt to resort to psychological considerations when trying to determine the content and structure of argumentative material.

The first, as Groarke and others have observed, is that many arguers could not specifically intend their arguments as either inductive or deductive (Groarke, 1995, p. 144) - or perhaps even as meeting any other well-defined standard of evidence. Yet, the problem with deductivism in this respect is not that it cannot produce this information, the problem is that it never asks for it in the first place. As such, it fails to recognize the importance of Vorobej's point that: "If an author has a certain belief about the strength of the logical link within his argument, that matters" (1992, p. 107). Indeed, as Vorobej says

> The difficulty in making ... judgements about an author's epistemic state is not in itself a good reason for saying we ought not to bother attempting to make them, given the important role they play within the enterprise of critical thinking. (1992, p. 111)

Also, intentions are not the only relevant pieces of psychological data involved in the interpretation of argument. Argument interpretation includes, but is not limited to, ascertaining the intentions of arguers. Like anything else that is transacted, arguments have producers and consumers. The argument that is understood might be different from the argument that is intended. Wherever these are different, the hermeneutical problems associated with argument interpretation cannot be limited to the arguer's intentions. Rather, an issue that is equally if not more significant is the issue of how the argument is understood by the consumer.[17]

Further, Vorobej suggests that other factors, beyond psychological facts about the arguer, might be taken as indicative of the relevant standard of evidence. These include "the context in which the argumentative passage appears, the actual relationship obtaining between the premises and the conclusion, [or] the logical form of the argument" (1992, p. 109). To this list, one might add facts about the situation, or social context. For instance, in a court of law the standards of evidence are clear and are procedurally institutionalized. In this respect, we may justifiably assume that the goal of the arguer is to meet those standards. Yet, even considering such situationally imposed normative constraints, there remains an inference that the arguer is trying to meet the standard, as opposed to *appearing* to meet the standard, but in fact not. As such, facts about the intentions of the arguer are not only relevant, but seem necessary in determining whether an argument on offer aims at a deductive standard or at some other standard, and thus how it ought to be analysed and reconstructed.

Finally, even acknowledging the importance of psychological facts about arguers to the interpretation of argument, there are certain circumstances where we might want to give up on intentions and other psychological criteria. There are many situations where the data that would settle the interpretive issue is perennially beyond our grasp or may not be forthcoming at all. For example, consider the interpretation of Descartes's 'argument' in the *cogito* passage of the *Meditations on First Philosophy*. Different (yet inconsistent) interpretations are plausibly suggested by the text. Consulting Descartes is impossible, and even if it were not, Descartes might not have understood the issue as we frame it, and might not have intended one reading over another. In a situation such as this, we might want to loosen the goal of trying to attribute

[17] I suspect that Berg does not consider this scenario because he has a rather particular argumentative situation in mind when proposing his interpretative model: viz. reading an argument in a text with the aim of evaluating it. There, the audience and the evaluator are one and the same, and the hermeneutical issue of what argument is understood simply drops out of the question.

an argument to an arguer, and merely content ourselves with the assessment of arguments as they are in circulation amongst us today.

This does not relieve us of the task of trying to interpret according to our best lights and using every possible resource in justifying the accuracy of our interpretation. But, it does significantly change the goals of the overall projects of analysis and assessment. The goal of attributing an argument to an individual arguer (e.g., Descartes) would be abandoned. Instead of inquiring after Descartes's argument, we might better describe such a project as attempting to determine the rational acceptability of a cartesian position. Questions in an inquiry such as this do not ask whether an arguer is justified in adopting or asserting a view, but rather ask whether that view is justifiable - that is, whether from a given set of propositions certain epistemic properties obtain between them.

## 7. DEDUCTIVISM, TRUTH AND CERTAINTY REVISITED

This brings me to the last reason that one might be justified in seeking to render an argument as deductive. One might want to interpret an argument as deductive because one has a particular theoretical interest in those 'properties' which are preserved in deductive standards of evidence - truth and certainty. In this context, it is always appropriate to ask whether some argument can be given an interpretation according to which that argument meets a certain standard of evidence.

Moreover, the significance of any such critical inquiry is not entirely a function of the descriptive accuracy of its analytical model. For example, if a particular argument is incapable of establishing the truth of its conclusion, then this normative, epistemic fact about the argument might be of theoretical interest independently of whether the standard of truth is an important goal of the producers and consumers of that particular argument. As Berg writes,

> if our aim is to find out whether the conclusion is true, the author's intentions do not matter at all; in such circumstances we should consider whatever plausible arguments we can think of for or against the conclusion, including those not even suggested by the text. (Berg, 1987)

By contrast, merely because a theorist can evaluate an argument according to a particular standard, this alone is insufficient to make such an evaluation relevant to a particular argumentative exchange. Rather, as I have argued, it is one task to evaluate an argument for its

epistemic merits, but it is an entirely separate task to establish the relevance of such an evaluation to any actual instance of argumentation. To establish the relevance of evaluation in any particular case, the theorist must establish that the evaluated argument can be legitimately attributed to an arguer. As such, it is unjustifiable to attribute an argument whose reconstruction has been guided by a theorist's interest in some particular standard of evidence to an arguer without certain additional evidence of a psychological, contextual or situational nature.

So, theorists may choose to adopt any standard in which they have an interest when evaluating an argument. The merits of such an investigation will rest, in part, on the nature of those standards. But, they will also rest on the relevance of those standards to the goals of other theorists and the arguers themselves.

### 7.1 *Deductivism: Splitting the Defense*

Defenders of deductivism have sought to defend claims like "it [deductivism] can provide a basis for a fruitful approach to understanding and assessing natural language arguments" (Groarke, 1992, p. 2). Here, my advice to the defense is that the defendants should be split, and that they should each receive separate council.

Groarke claims that the plausibility of deductivism as a normative thesis is tied to its plausibility as a descriptive or interpretive thesis, writing, "the plausibility of deductivism depends on, among other things, the plausibility of the 'reconstructive' strategy it implies" (1992, p. 114). Here, I think that Groarke makes a tactical error, and demands too much of his own position. It is certainly true that when arguers aim at the deductive standard of evidence, then deductivism provides the relevant norms for evaluating their arguments. But, deductivism might remain a good evaluative thesis even in cases where it is a bad interpretative one. Questions concerning whether deductivism is a good (or appropriate) strategy at the descriptive and evaluative levels should be treated separately, and not linked together.

The question of whether deductivism is a good evaluative thesis depends solely on the standards of evidence that we want to uphold, and bring to our evaluation of argument. And, our attitude towards deductivism as an evaluative thesis should be governed, in this respect, only by considerations like (i) our interest in this standard, and (ii) the ability of deductivism to uphold this standard.

On the other hand, the viability of deductivism as an interpretive thesis stands on completely other matters. Here, it stands on whether people actually argue deductively or whether they appeal to other standards in the justification of their views. It depends on whether people actually come to change their views on the basis of other considerations. As a descriptive thesis, deductivism solely depends on how accurately it portrays or represents its subject matter, and this cannot be determined without having facts about the arguers as well as facts about arguments.

### 7.2 *Broader Implications for the Description and Evaluation of Argument*

Since there are a variety of standards of evidence which arguers can attempt to meet in their acts of arguing, our interpretations and reconstructions of those acts cannot presuppose that they are trying to meet any one of those standards. This has general consequences for argumentation theory as a whole, as well as specific consequences for the tasks of argument interpretation and evaluation. A general consequence is that the activity of arguing itself cannot be defined in relation to any one standard of evidence. Rather, the activity of arguing must be defined in such a way so as to allow for a plurality of standards of evidence against which individual arguments can be evaluated.

In regards to the projects of argument interpretation and evaluation, the theorist must consider the relevance of the standard of evidence to the instance of argumentation under examination. The relevance of a particular standard of evidence can be established in at least two ways. First, a standard of evidence is descriptively relevant if it is the standard at which an arguer is, or ought to be, aiming at in some particular situation. The determination of a standard of evidence as descriptively relevant must be based on contextual, situational evidence which will normally involve certain facts about the arguers themselves. Alternately, a standard of evidence can be theoretically relevant if it is a standard in which the theorist has some particular interest.

The selection of an appropriate standard of evidence will significantly guide the reconstructive process. For example, since the tacit (or implicit) commitments of arguers will often be a function of the standards of evidence to which they are to be held rationally accountable, the determination of the appropriate standard of evidence for the argument under

examination will form a crucial step in the reconstructive process. Similarly, the interpretative principle of charity can only be applied relative to this appropriate standard of evidence. Now, while the reconstructive project need not employ a descriptively relevant standard of evidence, the failure to do so will jeopardize the accuracy of any subsequent reconstruction.

In regards to the task of evaluation, to examine an instance of argumentation against a standard of evidence which is not descriptively accurate is, in a sense, to examine that instance out of context. Now, while the theorist is not obliged to evaluate an instance of argumentation against a descriptively relevant standard, the failure to do so will jeopardize the relevance of any subsequent evaluative judgement to the situated instance under examination in its original context. It would seem, then, that theorists interested in the analysis and evaluation of particular, situated instances of argumentation must take a special interest in descriptively standards of evidence which are descriptively relevant.

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