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On deductivism : a critical survey of deductivism in informal logic

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On Deductivism: A Critical Survey of Deductivism in Informal Logic

by

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ABSTRACT

The aim of this thesis is to understand and critically evaluate deductivism as a theory of inferential sufficiency in informal logic. I distinguish three different types of deductivism: strong normative deductivism, weak normative deductivism, and reconstructive deductivism. I also discuss some potential justificatory strategies that might be invoked in an attempt to justify strong normative deductivism and reconstructive deductivism. I apply this categorization scheme to develop an interpretation of Leo Groarke's version of reconstructive deductivism. I then evaluate some of the criticisms of deductivism raised in the informal logic literature. I focus in particular on the criticisms of Ralph Johnson and Trudy Govier. I follow up this evaluation by raising some problems for the justificatory strategies used to support deductivism. I also show how these problems apply to Groarke's reconstructive deductivism.

DEDICATION

Antoinette Simard

To the best golf partner a grandson could ever have. I am forever in debt for your

guidance, wisdom, love, and friendship.

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PREFACE

The aim of this thesis is to understand and critically evaluate deductivism as a theory of inferential sufficiency in informal logic and argumentation theory. This topic raises many important questions. For instance, what is deductivism? How many versions of it are there? What justifications might support deductivism? And, do any of these justifications work? In this thesis I develop an understanding of deductivism by defining some of the different varieties of deductivism and listing potential justificatory strategies that might be invoked to support them. I then apply this understanding of deductivism to develop an interpretation of Leo Groarke's version of deductivism. Next I examine some of the criticisms that have been raised against Leo Groarke and other deductivists from within the informal logic and argumentation theory traditions. In particular I examine the criticisms of Trudy Govier and Ralph Johnson. I then develop some of my own criticisms of Groarke's version of deductivism through sequentially critiquing the different ways of justifying deductivism. I also assess the possibilities for the other versions of deductivism.

Deductivism is a theory of inferential adequacy or sufficiency. Govier says, "to be epistemically and logically adequate, an argument must meet two adequacy conditions: those concerning its premises and those concerning the inferential link between the premises and conclusion" (Govier 1999: p. 107). As I understand it, deductivism is a thesis about what standards must be met for an inference to be considered good—that is, for an argument's inferential link to be adequate. Deductivism

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need not make any commitments to a specific theory of premise adequacy, but it does need to be complimented by a view about premise adequacy to be a complete theory.

In Chapter One I define three types of deductivism: strong normative deductivism, weak normative deductivism, and reconstructive deductivism. I will then consider some potential ways that these different versions of deductivism might be justified. For strong normative deductivism I consider two possible justificatory strategies: the ontological and the psychological. For reconstructive deductivism I consider four strategies: the ontological, the psychological, the normative, and the pragmatic.

In Chapter II, I point out how deductivism fits within the informal logic tradition. I then apply the categorization scheme developed in chapter one to Leo Groarke's account of reconstructive deductivism. I claim that Groarke employs psychological, normative, and pragmatic justifications for reconstructive deductivism.

In Chapter III, I examine the criticisms that have been raised in the informal logic tradition against deductivism and Groarke's response to those criticisms. I look at Govier's criticism and claim that while she raises some challenges for deductivism a more fully developed version of deductivism, like that developed by Groarke, has ways to respond to the challenges she raises. Next, I look at Johnson's criticism that formal logic and deductivism have difficulty meeting the adequacy conditions that a good theory of argument must meet. I contend that while Johnson's criticism are effective criticism of formal logic, Groarke's version of deductivism is more resistant and can make a good case that it can satisfy Johnson's adequacy conditions.

In the final chapter I develop some of my own criticism to show what I think the problems with Groarke's version of deductivism are. I also consider the promise and draw backs of some of the other versions of deductivism. I critique deductivism by illustrating the difficulties that arise for each of the justificatory strategies. I also illustrate how these difficulties bear on Groarke's deductivism. I then go on to critique strong normative deductivism and evaluate the possibilities for weak normative deductivism.

CHAPTER I

VARITIES OF DEDUCTIVISM

1.1 Introduction

Deduction is a central concept in logic. Its centrality is evident from its being amongst the first concepts that most logic students are taught, and from its being a concept whose mastery is essential for the comprehension of, at least, the techniques of formal logic. But like many other concepts in the philosophical disciplines, the term 'deduction' is often used in public discourse in a way that does not conform with its use in specialized philosophical discourse. In fact, the term 'deduction' is commonly applied to any inference. Imagine Sherlock Holmes responding to Dr. Watson's enquires about Holmes' good reasoning with "elementary deduction good sir," when in fact, if we are following the use of 'deduction' as a term of art in philosophy and logic, Holmes is not doing any deducing whatsoever, but is, rather, 'inducing' or 'abducing' his conclusions.

Traditionally, deduction has been categorized as one type of reasoning distinct from inductive and abductive reasoning. There have been those, however, who have defended a view about argument cogency called deductivism which places deductive validity at the core of all cogent arguments. Some examples of such defenders of deductivism in recent informal logic and argumentation theory literature are Leo Groarke (1992, 1995, 1999, 2002), Susan Gerritsen (1994), and Louis Groarke (2000).

The theory of argument cogency is part of the theory of argument. A cogent argument, says Govier, "must meet two sorts of [adequacy] conditions: those concerning its premises and those concerning the inferential link between its premises and

conclusion" (Govier 1999: p. 107). The different variations of deductivism each propose different views on that part of argument cogency that concerns the link between an argument's premises and its conclusion. In other words, they propose different theories of inferential adequacy. In this chapter I will present some variations of the deductivist theory of inferential adequacy and some of the different claims that could be invoked as justification for these different deductivist views.

It will be important to distinguish between that part of the theory of argument cogency that concerns an argument's inference and that part that concerns premise acceptability. The different sorts of deductivism must fit with a theory about premise acceptability. When a deductivist makes assessments about whether an argument is good or not they must, in addition to evaluating the inferential link, also adopt some view about the acceptability of the argument's premises. How premise adequacy is assessed would depend on the theory of acceptability that is adopted. In this thesis I will be concerned, in particular, with different deductivist views about inferential adequacy. It must be recognized that, in order to constitute a fully worked-out theory of evaluation, any one version of deductivism must fit with a theory of premise acceptability. In this thesis, however, I only discuss the theory of premise acceptability to acknowledge that some notion of what makes a premise acceptable is required to fully evaluate arguments. As far as I can tell, however, the deductivist need not be committed to one view about premise acceptability rather than another.

The aim of this chapter will not be to defend or refute deductivism, but to better understand what it is and why someone might be inclined to endorse it. I am not suggesting that the justifications of deductivism discussed in this chapter succeed. In

fact, as we will see in the final chapter, I think there are problems with each one. My

purpose in this chapter is to achieve greater organization in how we conceptualize

deductivism. This chapter, if it has succeeded, should yield a useful way of

conceptualizing deductivism both for those who are inclined to endorse it and for those

who are critical of it. Often deductivism is simply dismissed as being implausible. Such

dismissals might amount to the view that 'surely, contrary to the claim of the

deductivists, there are non-deductive arguments.' Whether these dismissals are justified

or not requires first understanding exactly what the deductivists are claiming, and

whether or not the reasons supporting their claims are any good. We would not want any

unwarranted presuppositions to get in the way of sound philosophy, especially when what

is at stake is the application of a concept which has the centrality in philosophy and in

logic that 'deductive argument' does.

1.2 Defining 'Deductive Argument'

Copi defines "deductive arguments" as arguments that *involve* "the claim that

[their] premises provide conclusive grounds" for their conclusion. He continues by

dividing deductive arguments into two classes: valid and invalid. "A deductive argument

is valid when its premises, if true, do provide conclusive grounds for their conclusion,

that is, [the] premises and conclusion are so related that it is absolutely impossible for the

premises to be true unless the conclusion is true also" (Copi 1978: p. 32). Validity is

understood, accordingly, not as an essential property of deductive arguments. Instead

validity is an essential property of *successful* deductive arguments; that is to say, it is a

property of deductive arguments that do not simply "[involve] the claim that [their]

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premises provide conclusive grounds" (Copi 1978: p. 32) for their conclusion, but, in fact, *do* provide conclusive grounds. Many authors follow Copi and understand deductive arguments as being either valid or invalid, although this is not a requirement of a definition of a deductive argument.

We might ask of Copi, and of others who would define deduction similarly, how can we determine whether an argument involves the claim that its premises provide conclusive grounds for its conclusion? Machina (1985) points out that the sort of evaluation that would be needed to determine whether or not an argument involves the claim of conclusiveness is not the logical evaluation of the argument, but the psychological and contextual investigation of the arguer and the context in which she made the argument. The thought is that if an argument can be said to involve the claim of conclusiveness, then this could be determined by assessing an arguer's intentions in making their argument or by assessing the argument's context: did the arguer intend her argument to be conclusive or, alternatively, does the context in which the argument was made suggest that it is plausible (or implausible) to attribute the purport of conclusiveness to the argument? But *intention* and *context* are not logical concepts. If we accept Machina's view—as it seems reasonable to do—that purports of conclusiveness are psychological and contextual matters, and Copi's definition of 'deductive argument' as those arguments which include the purport that their conclusion follows conclusively from their premises, then 'deductive argument' would be a psychological and/or contextual concept. The essential characteristics of 'deductive argument' would not be exclusively logical but the psychological and contextual characteristic of 'involving the purport of conclusiveness'. Machina says, this "sort of

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[psychological and contextual] evaluation of the author is not [the] logical evaluation of his argument. . . . *Logical* evaluation only tells us about the character of the evidentiary relation between [the] premises and [the] conclusion [of] a given argument" (Machina 1985: pp. 573-574).

It seems peculiar that deductive argument would not be a logical concept. A definition of deductive argument, however, might take a different approach and understand validity to be essential to deductive arguments and, thus, avoid this peculiarity. In this way, unlike Copi's, such a definition of deduction would claim that the *logical* success of an argument is a necessary condition of claiming of the argument that it is a deductive argument. Arguments, to be considered deductive arguments according to such a definition, must, *contra* Copi, successfully provide logically conclusive grounds for their conclusion. Deductive argument, under this definition, is *identified* with deductively valid argument. This identity between deductive argument and deductively valid argument focuses the definition of 'deductive argument' on the nature of the inference instead of on the psychological and contextual features of the argument. Whether or not an argument involves the claim of providing conclusive grounds for its conclusion is irrelevant. What is relevant is that the endorsement of the inference from the premises to the conclusion be necessary on pain of contradiction. That is to say: necessarily, given the truth of the premises, the conclusion is true too. In a deductive argument one cannot maintain consistency while endorsing the argument's premises and at the same time denying its conclusion.

If an argument does not exhibit this sort of logical success it is difficult to see how it has, in any adequate sense of the term, deduced the conclusion from the premises.

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Certainly an argument may *appear* to have a valid inference—and in this way the argument might *seem* to provide conclusive grounds for the conclusion when it does not. *Actually* making a valid inference and providing conclusive grounds for the conclusion is another matter entirely. In my view it is better to think of arguments that *appear* to be valid but are not as *attempts* at deductive arguments and not as *instances* of them.

Do we say of someone who dropped out of a marathon after the 20th mile that she 'ran the marathon'? Or, do we say that she 'tried to run the marathon'? I think that we would say the latter, and I think it is the same with deductions.

It is, therefore, reasonable to consider an argument deductive only when the argument makes a deductively valid inference to the conclusion. We can, therefore, adopt the following understanding of deductive argument:

> **Deductive argument** is an argument in which the inference from the
> premises to the conclusion is necessary; that is, when there is no consistent
> assignment of truth-values to propositions in the argument that will make
> the premises of the argument true and the conclusion false.

1.3 Defining 'Deductivism'

I agree with James Hearne's point that deductivism is not one single thesis but "a cluster of them" (Hearne 1983: p. 205). Based on the variety of theses that can be embraced under the label 'deductivism,' it is best to approach understanding deductivism not by giving one all-encompassing definition but by sketching a map of the conceptual terrain. In this section I will sketch such a map by presenting different types of

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deductivism and in the next section I will present different ways of justifying these different types of deductivism.

Deductivism can be divided into two broad categories—normative deductivism and reconstructive deductivism. Normative deductivism subscribes to some version of the maxim that arguments are either 'deductive or defective.' On the one hand, a normative deductivist might hold the position that all *good* arguments are deductively valid. Call this category *strong normative deductivism*. The thought here is that arguments which are not deductively valid are flawed. Deductive validity is the normative standard by which a strong normative deductivist evaluates arguments and classes them as good or bad. Any argument that is not deductively valid can be dismissed by a strong normative deductivist because that argument has not satisfied the normative condition of inferential adequacy.

But, a normative deductivist may have the view, on the other hand, that certain non-deductive arguments are logically less defective than others and, therefore—it follows immediately—that, for this version of normative deductivism, some non-deductive arguments are logically better than other non-deductive arguments. Indeed, this sort of normative deductivism may consider some deductively invalid arguments logically good, but not as logically good as deductively valid arguments. I will call this position *weak normative deductivism*. Weak normative deductivism adopts the view that deductive validity is the highest logical standard of evaluation that an argument can satisfy; so the best arguments will be deductively valid ones. Notice, however, that the higher the degree of logical goodness that can be attributed to deductively invalid arguments the weaker the normative deductivism becomes. Therefore, a weak normative

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deductivist position would collapse, if the sense of logical goodness it attributes to deductively invalid arguments is as strong a sense of logical goodness as that attributed to deductively valid arguments.

Reconstructive deductivism, on the other hand, does not make any judgments about whether a deductively invalid argument is logically good until after the argument has been reconstructed as deductively valid. Only after this reconstruction will a reconstructive deductivist make any assessment of whether or not the argument under evaluation is any good.

A reconstructive deductivist evaluates arguments that are not transparently valid through reconstruction and premise assessment. A reconstructive deductivist turns deductively invalid arguments into arguments that have necessary inferences which are, therefore, deductively valid. The reconstruction of arguments such that they have deductively valid inferences is accomplished through the addition of premises that, in conjunction with the given premises, make the argument's inference necessary. That is to say, the premises added in reconstruction should change an argument whose conclusion could be false when the premises are true into an argument where this is not possible. The reconstructive deductivist will then evaluate the deductively invalid argument by assessing the acceptability of the argument's premises. For example, the old Socrates argument

Socrates is a man, therefore, Socrates is mortal

may be reconstructed by adding the premise

All men are mortal.

By making the inference deductively valid, the original argument can be evaluated

through examining the premises of the reconstructed argument. If the premises turn out

to be acceptable, then the original argument may be considered a good argument. The

reconstructive deductivist will claim that such a method for the evaluation of arguments

is applicable to all arguments that are deductively invalid. Arguments that are

transparently valid are in no need of reconstruction; they are only in need of evaluation.

We are now in a position to define "normative" and "reconstructive deductivism"

as follows:

Strong Normative Deductivism: the view that the only logically good

arguments are deductively valid. Deductive validity is the only standard

by which we evaluate arguments to determine if they are logically good or

not (that is, if the inference made to the conclusion is good).

Weak Normative Deductivism: the view that deductively valid

arguments are logically superior to invalid arguments, but that some

invalid arguments are logically superior to other invalid arguments. The

highest inferential standard, according to weak normative deductivism, is

deductive validity.

Reconstructive Deductivism: is a method for evaluating arguments. If a

given argument is deductively invalid, then its logical strength can be

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assessed in the following way: (1) add a valid-making premise P to the given argument; (2) if P is acceptable, then the given argument is logically strong; and if P is not acceptable, the given argument is logically weak (there may be degrees of statement acceptability which convert to degrees of logical strength).

1.4 Justifying Deductivism

Why might one endorse a normative or reconstructive deductivist thesis about argument cogency? For the normative deductivist this question amounts to the question, why would one think that deductively valid arguments are the best sort of argument? And for the reconstructive deductivist the question is what reason do we have for reconstructing arguments as deductively valid? I want to identify two reasons that might motivate strong normative deductivism and four that might motivate reconstructive deductivism.

The justifications for deductivism that I will present are *ontological*, *psychological, normative*, and *pragmatic*. The first two can apply to strong normative deductivism and all four can apply to reconstructive deductivism.

The *ontological* justification depends on a distinction between the written or spoken *text* of an argument and the argument itself. This position is a sort of Platonism about arguments similar to Platonism about numbers and geometrical figures in the philosophy of mathematics. In mathematical Platonism, numbers are *real* entities that are denoted by numerals and there are *real* relationships that exist between numbers that can be expressed by symbols in equations and formulas. In mathematical Platonism

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numerical and geometrical relationships are discovered, not constructed. Mathematicians did not *construct* the 'Pythagorean Theorem' or the 'Infinitude of Primes'; rather, these geometrical and arithmetical relationships were *discovered* by them. A Platonist about arguments would similarly think that arguments are real entities that are discovered, not constructed by arguers. Arguers, on this view, "stumble across" or "find" relationships between premises and conclusions that already existed but had perhaps never been expressed.

One variation on the ontological view about arguments is ontological deductivism. An argument, according to ontological deductivism, is a deductively valid entity. Therefore, texts that are not deductively valid fail to denote an argument. We can proceed to evaluate arguments by reconstructing the text into a deductively valid text that denotes an argument. A non-valid text could be reconstructed so that it denotes a (valid) argument. This view about the ontological nature of arguments would be one way of justifying a method of evaluating texts by reconstructing them to correspond with a (valid) argument. Hence, this view would constitute one justification for reconstructive deductivism.

Psychological considerations can also be invoked in an effort to justify reconstructive deductivism. Call this the *psychological* justification. Psychological considerations are those that involve mental states like intentions and beliefs. While I think these considerations can be applied to normative and reconstructive deductivism, I will begin by considering their application to reconstructive deductivism. The psychological justification takes arguments to be human products. Arguments, according to the psychological view, are constructed by arguers. There is a strong and a weak

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version of the psychological justification. The strong version adopts the highly implausible view that human psychology is such that all arguments produced by humans are deductively valid. According to this view every argument is deductively valid because humans are built in such a fashion that they can only make deductively valid arguments. This view would be immediately falsified if there is one argument that is not deductively valid. Since it seems that many arguments are not deductively valid, I will not spend anymore time considering this view.

The weak psychological justification for reconstructive deductivism is a little more plausible. The weak psychological view is a theory about human cognition that postulates that human beings are built in such a way that they always *attempt* to argue deductively. Weak psychological deductivism can be invoked as a reason to reconstruct arguments as deductively valid. The idea is that an arguer's beliefs factor into their arguments in such a way that the arguer must be understood as trying to make an argument that is deductively valid. The arguer must aim to make her argument a deductively valid argument. If all arguments involve beliefs that, once made explicit in the form of premises, make an argument deductively valid, then we should reconstruct the argument by adding premises that make it deductively valid. We then would have invoked a reconstructive deductivist strategy on the grounds of the "psychological" claim that all arguers hold beliefs that make their argument an attempt at a deductively valid argument.

The ontological and psychological justifications can also be used to justify strong normative deductivism. If we accept the ontological deductivist position that all arguments are *real* in a Platonic sense and that all arguments are deductively valid, we

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could, instead of reconstructing the invalid text, simply dismiss it. While the text may be purported, by some arguer, to be an argument, the text is not deductively valid, so it is in fact not an argument. Instead of adopting the reconstructive policy of turning these invalid texts into texts that denote (valid) arguments, an ontological deductivist might just dismiss them outright. The arguer may think of her text as being an argument, but the text fails to denote any argument whatsoever, so it need not be considered to have satisfied the standard of logical goodness of argument. Notice that this is a justification for strong normative deductivism—a text that is not deductively valid is not good.

Psychological deductivism, as we saw, can be weak or strong. If you are a strong psychological deductivist, you would be a *de facto* strong normative deductivist. If human psychology is such that the only arguments we make are deductively valid, then the normative standard of inferential adequacy would have to be deductive validity; anything less just wouldn't be an argument. It is worth stating again that strong psychological deductivism seems implausible, because people often argue in ways that are intentionally deductively invalid; they produce arguments which they are aware are deductively invalid.

Weak psychological justifications might also justify strong normative deductivism. If all arguers have beliefs and intentions that make their arguments attempts at deductively valid inferences, then we might dismiss attempts which fall short. Attempts to make deductively valid arguments that do not make actual deductively valid arguments might be understood as failures—as attempts which did not succeed.

The strong normative deductivist might invoke such considerations to support the view that the only arguments that should be accepted as logically good are arguments that

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realize their aim—which for the psychological deductivist is deductive validity—hence, deductively invalid arguments should be dismissed. Here we have a strong normative deductivism justified by the psychological claim that all arguers are attempting to make deductively valid arguments. We dismiss any arguments that are not deductively valid (strong normative deductivist) because that suggests that the arguer failed to accomplish her aim (psychological deductivism).

The next justification that I will explain is the *normative* justification for reconstructive deductivism. Arguments that are not deductively valid, under this justification, should be turned into logically good arguments that are deductively valid because deductively valid arguments are the best version of any argument. If we adopt a normative deductivism, then instead of dismissing arguments that are not deductively valid, we would turn them into deductively valid arguments. The normative deductivist might invoke charity and reconstruct an argument that is not deductively valid into a deductively valid argument and then proceed to evaluate the argument's premises. Instead of dismissing the argument they might think that a reconstructive process advances rational discussion—so while the original argument is no good, it should be turned into a different, yet similar, logically good argument for evaluation. I think Godden (2005) makes this point clearly. Godden distinguishes between deductivism as a normative, or according to his terminology an *evaluative* thesis, and deductivism as a reconstructive or, as he terms it, an *interpretive* thesis, and makes the point that "if [the evaluative] thesis were true—that is, if the only acceptable standard of evidence was embodied in the rules of deduction—then [the interpretive thesis] would follow as a consequence" (Godden 2005: p. 170).

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Pragmatic justifications for deductivism only apply to reconstructive deductivism. Generally these justifications assert that reconstructing arguments as deductively valid is useful for analyzing and evaluating the argument. Whether all arguments are deductive entities, or humans are psychologically constituted so that they attempt to make deductive arguments, or whether deductive arguments are better than others, is irrelevant. Pragmatic justifications claim that there is heuristic value in deductively reconstructing arguments that are not deductive for the purpose of evaluation regardless of whether deductive validity is the best standard, or whether or not people always attempt to argue deductively. By turning the argument into a deductively valid argument we need only evaluate the premises of the deductively valid version of the argument. This is a useful strategy for critiquing or defending an argument, or so, at least, claims the pragmatist about reconstructive deductivism.

Pragmatic justifications for reconstructive deductivism are consistent with there being a plurality of different sorts of inferential links between premises and conclusions. There may be many different types of deductively invalid premises-conclusion relationships. The pragmatic justification only claims that these relationships can be evaluated as deductively valid arguments through the addition of a premise that expresses an argument's inferential link and the subsequent assessment of that premise's acceptability. We might here distinguish between a weak and a strong version of the pragmatic justification for reconstructive deductivism. The strong version of would insist that the reconstructive strategy is the most useful of any strategy for evaluating arguments. The weak version, on the other hand, says it is as useful as any other method for the evaluation of arguments.

The strong version claims that reconstructing arguments as deductively valid is the best way to evaluate arguments. There is no better way to logically evaluate arguments than to turn them into deductively valid arguments. Evaluating arguments according to some other method such as the fallacy approach, inductivism (positivism), or conductivism, etc. is possible, but these alternative methods are not as effective for the evaluation of inferential adequacy as reconstructive deductivism.

The weak pragmatic justification does not claim that reconstructing arguments as deductively valid is any better than some other method of evaluation. It only suggests that it is as useful as any other method for evaluating arguments. This line of justification for reconstructive deductivism might then invoke Ockham's razor and claim that instead of using a plurality of different standards for argument evaluation we should use just one, and since deductive validity is a well understood standard, and a simple method of evaluating inferential adequacy that can be applied to all arguments, we should adopt it as a convention.

1.5 Conclusion

We have looked at two broad categories of deductivism—normative deductivism and reconstructive deductivism. We saw that normative deductivism divides into a weak and a strong version. We then looked at some potential ways of trying to justify deductivism. We looked at ontological and psychological justificatory strategies for normative deductivism. For reconstructive deductivism we presented ontological, psychological, normative, and pragmatic justificatory strategies. This list does not claim comprehensiveness.

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This sketch of the different types of deductivism and their corresponding potential justificatory strategies has the aim of refining our understanding of what deductivism is and why someone might want to be a deductivist. Its aim is not to defend deductivism. Rather, its aim is to clarify the dialectic surrounding deductivism. I think looking at the issue of deductivism according to the conceptual terrain sketched in this thesis helps to clarify the possibilities of deductivism for all sides of the issue. Proponents of deductivism could decide what justifications they think best support their version of deductivism and solidify them. Opponents could systematically critique each potential justification.

CHAPTER II

DEDUCTIVISM EXPLAINED

2.1 Overview

In the first chapter I sketched the conceptual terrain of different deductivist theories of inferential adequacy. In that chapter I gave definitions for three different kinds of deductivism and examined some of the different justificatory strategies that can be used to support these varieties of deductivism. In this chapter I provide an account of reconstructive deductivism. This account will focus on reconstructive deductivism as it has been developed within the informal logic and argumentation theory literature. In the following chapter I examine criticisms that have emerged within the informal logic and argumentation theory scholarly communities, and in the final chapter I will develop some of my own criticisms and evaluate the viability of weak and strong normative deductivism.

2.2 Introduction

Formal deductive logic (FDL) is a powerful system for logically evaluating certain arguments. It offers logicians a precise set of rules for determining the validity of inferences. However, FDL runs into problems modeling arguments used outside formal contexts. In Govier (1987, 1999) and Johnson (2000) this problem has offered the foundations for a critique of FDL as a method of evaluating arguments. But other informal logicians and argumentation theorists, such as Leo Groarke (1992, 1995, 1999,

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2002), Susan Geritsen (1994), and Louis Groarke (2000), have argued that a variation on FDL is the best way to assess natural language arguments. In this chapter I plan to provide a descriptive account of reconstructive deductivism as it has been developed within the informal logic tradition. In particular, following Godden, I will take the work of Leo Groarke to be representative "of the kinds of arguments that could be developed in defense of reconstructive deductivism" (Godden 2005: p. 168).

I begin this chapter with a general account of the informal logic movement and how the version of deductivism developed by Leo and Louis Groarke, as well as Susan Gerritsen, fits in with this movement. I continue with a detailed exposition of my understanding of Leo Groarke's brand of reconstructive deductivism. I also discuss the different strategies that Groarke employs in an effort to justify reconstructive deductivism. I conclude that Leo Groarke can be interpreted as using psychological, normative, and pragmatic justificatory strategies.

2.3 Formalism, Informal Logic, and Deductivism

The informal logician "sets out to study arguments from a point of view that is different from. . .formal logicians" (van Eemeren, Grootendorst, Henkemans: 1996, p. 163). In the 1970s, across Canada and the United States, several logic teachers became dissatisfied with teaching formal techniques for the purpose of evaluating and analyzing natural language arguments. While formal logic offers well-defined procedures to determine logical relationships—such as, in truth-functional logic: equivalence, consistency, and validity—it proved difficult to apply meaningful formal analyses and

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evaluation to arguments in the real world. A typical reaction that teachers of logic would receive from students exposed to formal techniques would be: "How does understanding logical entailment or equivalence help me evaluate reasons for or against Quebec separating from Canada or the reason for or against the impeachment of Richard Nixon?" It seemed to some logic teachers in the 1970's that the tools of analysis and evaluation developed in formal logic were helpful for arguments abstracted from real world contexts, but not for arguments that are found in boardroom meetings, political debates, or legal cases. In an introduction to one of the early informal logic textbooks, its author, Howard Kahane, explains his motivation for writing the text in the following way:

> Today's students demand a marriage of theory and practice. That is why so many of them judge introductory courses on logic. . . not relevant to their interests.
>
> In a class . . . I was going over the (to me) fascinating intricacies of the predicate logic quantifier rules, a student asked in disgust how anything he'd learned all semester long had any bearing whatever on President Johnson's decision to escalate again in Vietnam. I mumbled something about bad logic on Johnson's part, and then stated that Introduction to Logic was not that kind of course. His reply was to ask what courses did take up such matters, and I had to admit that so far as I knew none did.
>
> He wanted what most students today want, a course relevant to everyday reasoning, a course relevant to the arguments they hear and read about race, pollution, poverty, sex, atomic warfare, the population

explosion, and all other problems faced by the human race. (Kahane 1976:

Kahane 1971: p. vii)

The counter-culture *zeitgiest* of the 1960's molded informal logic as a reaction to the

perceived difficulties that formal logic had in evaluating everyday, real-world, practical

arguments (Johnson and Blair 1997 pp. 158 and 165-166). Certainly, the techniques of

formal logic can say with absolute certainty if some sentences entail others sentences, but

these formal techniques, so the early informal logicians thought, do not tell us enough

about whether an argument is good. Here is an example:

1. If Ottawa is the capital of Canada, then British Columbia is on the Pacific

   Coast.

2. Ottawa is the capital of Canada.

3. Therefore, British Columbia is on the Pacific Coast.

As I shall show this argument is not good. However, according to formal logic, this

argument is sound because it "has two essential features: *It is valid and all its premises

are true*" (Layman 2002: p. 6). In formal logic, arguments do not get any better than

that—they can't meet any higher evaluative standard. But there are other logical

characteristics of the above argument that indicate that it is not a good argument. We

want to know, for instance, if the argument's premises are *acceptable*, and if they offer

relevant and *sufficient* support for their conclusion. The first premise is clearly not an

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acceptable premise because the antecedent, 'Ottawa is the capital of Canada,' is not a relevant reason to think that 'BC is on the Pacific coast.'

Rolf George and Nina Gandhi (2005) point out some of the differences between the formal and informal approach to logical analysis and pedagogy. Instead of exposing the mind to the rigors of the formal approach to drawing and assessing implications,

> Informal logic texts . . . do not focus . . . on [training] the mind through exposure to formalism, but charge directly into maneuvers, simulations of battle that are close to the real thing, and discuss issues of present and important concern (George and Gandhi 2005: p. 121).

Through this approach to the study and teaching of logic, the informal logician aims to develop concepts for the purpose of logical evaluation that are broader in scope than formal techniques of logical entailment and truth.

Relevance, sufficiency, and premise acceptability are examples of logical concepts used by a number of informal logicians to broaden the scope of argument evaluation. In the textbook *Logical Self-Defense* first published in 1977 Johnson and Blair developed relevance, sufficiency and acceptability as "criteria that govern logically good argumentation." They define the different criteria of the "RSA triangle" (Johnson and Blair, 2006: p. 55) as follows:

> *Relevance*: One of the three criteria that govern logically good argumentation; each premise of the argument must be relevant to the

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conclusion. The determination of relevance must be made taking into consideration every other premise of the argument (Johnson and Blair 2006 p. 304).

Sufficiency: One of the three criteria that govern logically good argumentation; taken all together, the premises must provide enough evidence or adequate reason to warrant accepting the conclusion (Johnson   air 2006).

Acceptability: The quality of being acceptable; a premise is acceptable   hen it is reasonable to expect a member of the audience to take the pi.   se without further support; one of the three criteria that govern logically good argumentation; each premise must satisfy this requirement (Johnson and Blair 2006: p. 297).

I do not mean to suggest that there is unanimous agreement within the informal logic literature that the RSA conditions are necessary and sufficient concepts for logical evaluation. There has been much discussion as to whether or not they satisfy such conditions (van Eemeren, Grootendorst, Henkemans *et al* 1996: p. 178-180). For my purposes, therefore, I adopt these definitions of the RSA conditions as good working definitions without committing myself to whether or not they are necessary and sufficient concepts for logical evaluation. These concepts introduce broad normative criteria that can be applied to natural language arguments for the purposes of evaluation. They have also been incorporated with "varying terminology, in Govier (1985), Damer (1987),

Little, Groarke and Tindale (1989), and Seech (1993)" (van Eemeren, Grootendorst, Henkemans *et al* 1996: 178).

A standard definition of argument in formal logic is "a set of sentences one of which (the *conclusion*) is taken to be supported by the remaining sentences (the *premises*)" (Bergmann, Moore, and Nelson 1998: p. 7). While informal logicians have debated the definition of argument, something roughly like the above is adequate as at least part of the definition for them as well. What informal logicians seek to include in their conception of argument that makes it more comprehensive than the standard formal conception of argument is a broader notion of what the term 'support' amounts to. For instance, Johnson's notion of a good argument includes an 'illative core,' which is roughly similar to the standard formal definition of argument, as well a 'dialectical tier' where the arguer speaks to objections raised about their argument (Johnson 2000: p. 168).

Formal logicians, on the one hand, are primarily interested in the sort of support provided by premises that entail their conclusion—with a secondary concern for truth, which, from the formal logician's standpoint, is to be ultimately settled by the experts in the field about which the premise makes the claim. On the other hand, the informal standards for argument goodness, according to some informal logicians, are not dependent on whether the premises of an argument entail its conclusion. Informal logicians are concerned with whether an argument satisfies a set of broad normative criteria such as the RSA conditions. The determination of inferential adequacy, for certain informal logicians, does not depend on whether the conclusion is entailed by the premises. According to these informal logicians, validity is just not an essential characteristic of logical goodness. For them an argument can satisfy some other standard

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of inferential adequacy which provides sufficient support for the conclusion without entailing it. Some alternative evaluative standards might be abductive or conductive standards for inferential adequacy.

This view does not imply that validity is not a real characteristic of some arguments. It only suggests that validity is not a necessary or a sufficient condition for inferential adequacy. Arguments can be good and fail to entail their conclusion or they can be bad and entail their conclusion (for instance the above example about Ottawa and B.C.). Johnson and Blair's RSA conditions are evaluative concepts that are not dependent on whether a conclusion is entailed by its premises. An argument can be good if it satisfies these standards and does not entail its conclusion. An argument, however, cannot be good without meeting the RSA standards even when the argument's premises entail its conclusion. In this way the RSA conditions broaden the notion of logical support beyond the criteria of truth and validity.

But this is not the whole story. While informal logicians have sought to broaden the concept of logical analysis beyond entailment, there are many informal logicians who have also insisted that entailment has an important role in logical evaluation.

This group of informal logicians can be divided into two camps. On the one hand, there are those who would view entailment as one amongst other standards of inferential adequacy. For instance, what I understand Govier to mean by "*the pluralist view*" (Govier 1999: p. 108) can be thought of as fitting into this camp; also, what I call in chapter one "*weak normative deductivism*" fits in here. These views see entailment as one standard of inferential adequacy among others. Entailment would play some role, according to those who recognize other standards of inferential adequacy than deductive

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validity, in the logical evaluation of only some arguments. On the other hand, other informal logicians have conceived of entailment as having a role in evaluating *all* arguments. Deductivism has usually been thought of as an elaboration of the latter view, although, as we saw in chapter one there is a version of deductivism—weak normative deductivism—which would more appropriately fit in with the former view. The informal logicians and argumentation theorists who see entailment has having a central role in evaluating all arguments—that is, those who fit in with the latter camp—have developed and advanced reconstructive deductivism.

Defenses of deductivism, and subsequent further developments of deductivist theories of argument, have emerged as a reaction to criticisms of deductivism developed by Stove (1970) and Govier (1987). Among the defenders of deductivism in the informal logic and argumentation theory literature, as previously mentioned, are Leo Groarke (1992, 1995, 1999, 2002) Susan Gerritsen (1994) and Louis Groarke (2000).

2.4 Leo Groarke's Deductivism

The first thing to point out about Groarke's deductivism is that it is a version of what Govier (1987: p. 230) calls *nonformal deductivism*. Groarke calls this type of deductivism *natural language deductivism*, or NLD for short (Groarke 1999: p. 1). The formal logician sees entailment solely as a matter of argument form. "That is, the premises would have to entail the conclusion, and the entailment relationship would have to hold in virtue of the structure of the argument, as based on standardly logical words such as 'all', 'some', 'none', 'not', 'if then', 'or', and so on" (Govier 1987: p. 23).

Nonformal (or natural language) deductivists in contrast, admit that arguments can be "deductively valid in virtue of either meaning or form" (Govier 1987: p. 23). NLD has a more flexible view then FDL about what arguments are to be classified as deductively valid arguments. For the formalist the following argument is not valid:

1. The garbage is always picked up at least once a week.

2. The garbage has not been picked up for the last six days.

3. Therefore, the garbage will be picked up tomorrow.

This argument is not valid in virtue of its form because it does not make explicit a premise with the content 'if the garbage is always picked up once a week and it has not been picked up for six days, then it will be picked up tomorrow.' Without the addition of such a premise, the argument is not deductively valid because of its form. We cannot abstract the argument into a logically valid argument form, like *modus ponens*. But a nonformal deductivist recognizes that because of "the meaning of nonlogical terms in the argument" (Godden 2005: p. 169), if the argument's premises are true, then the conclusion must be true too. Because "a week" means "an interval of seven days," and "the garbage is always picked up, at least, once a week"—thus, it is picked up at least once for every seven day interval—and given that the garbage has not been picked up for the last six days and making tomorrow the seventh day, it logically follows that the garbage will be picked up tomorrow. This entailment, however, is based on the meaning of the words 'week,' 'day,' and 'tomorrow,' not on the logical form of the argument. Still: it is not possible for the premises of the above argument to be true while the

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conclusion is false. If we say (1) is false then it could be possible that the garbage will not be picked up tomorrow. The same holds if we assert that (2) is false or that both (1) and (2) are false. But if we say that (1) and (2) are true, then we must also say of (3) that it is true. Entailments, like the one in the above argument, which are based on the meaning of the argument's nonlogical terms, can be called semantic entailments.

There are two key features of NLD that Groarke identifies as distinguishing it from FDL. "First, [NLD] replaces a technically defined sense of validity with a non-formalized sense of validity. Second, [NLD] does not propose soundness as a sufficient criterion for distinguishing good and bad arguments" (Groarke 2002: p. 278). NLD, rather than understanding formal validity as the only sort of validity, will also include semantic entailments. NLD can be understood, therefore, as being a type of what Govier called nonformal deductivism. The standard of deductive validity, as it is understood in NLD, may not properly "be equated with formal validity" because "material validity will do just nicely" (Godden 2005: p. 171).

The second feature that distinguishes NLD from formal logic is that, unlike in formal logic, truth is not a necessary criterion for goodness of argument, according to NLD. The natural language deductivist admits to the class of good arguments, not only arguments with true premises, but also arguments with *acceptable* premises. "A premise is acceptable," as we saw Johnson and Blair claim, "when it is reasonable to expect a member of the audience to take the premise without further support" (Johnson and Blair 2006: p. 297). A premise that an audience is reasonably expected to be justified in believing based on evidence it has or evidence it is reasonably expected to have is an acceptable premise. The justification for an acceptable statement could prove its truth

conclusively, but it need not. The justification could also provide probable or plausible support for the claim—that is to say, it might not prove that the claim is true, but establish some reason to think that it is true. NLD is then able to include in the class of good arguments those with acceptable premise whose truth we have not made—or cannot make—conclusive judgments about.

It is desirable to include these arguments because often we do not know whether an argument's premises are true but, nevertheless, because the premises are still acceptable, the argument is reasonable. There have been many philosophical, moral, and scientific arguments that have supported their conclusions well but have turned out to have false premises. We do not want to say that these are not cogent arguments because their premises turned out to be false. NLD can distinguish between cogent arguments that give good reason for their conclusion and arguments that do not provide good reasons for their conclusion because they are not cogent. We do not want to dismiss an argument only on the grounds that it has turned out not to have true premises. NLD, accordingly, admits arguments with acceptable premises and undetermined truth status as cogent arguments. We want to recognize that the cogent arguments began with acceptable premises and proceeded to justify its conclusion on the grounds of those premises even if those arguments may turn out to be false.

Some examples of acceptable premises with truth values that we have not made or cannot make conclusive judgments about might be probabilistic claims and plausible normative claims with equally plausible defeater normative claims (so we cannot tell which one is true). As an example of the latter consider the normative claims: 'we should impose strict regulations on fossil fuel emitting industry' and 'we should not impose

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strict regulations on fossil fuel emitting industry.' Both statements are reasonable, and both might have some justification in their favor, but both statements cannot be true at the same time. Therefore, we are justified in believing the claims made in either argument even though we cannot think they are both true simultaneously.

Non-normative claims whose truth we can question or about which we are not able to make conclusive judgments can also be acceptable. An example of an argument with the latter type of claim would be the following:

1. A person with plugged sinuses, a cough, and a fever, has a cold.
2. Jack has plugged sinuses, a cough and a fever.
3. Therefore Jack has a cold.

While the above argument has acceptable premises, the premises need not be true. There could be other reasons for Jack's symptoms. Allergies, for instance, might be a good candidate. People with allergies can have the list of symptoms in (1) but not necessarily because they have a cold. Therefore, the statement that anyone who has the symptoms in (1) has a cold is not true but, nevertheless, seems acceptable. We have justification to think that someone who has those symptoms has a cold, but this justification does not conclusively establish the truth of the statement: rather, it only provides reason to believe it.

Contrary, then, to FDL, arguments like the examples above can meet the standard of goodness laid out in NLD because NLD (i) admits arguments that are entailments based

on the meaning of natural language sentences and (ii) weakens the criterion of premise

truth to premise acceptability.

2.5 An Expository Description of NLD

Having highlighted the two specific ways that Groarke's NLD differs from formal

deductive logic, I will now present a positive description of NLD, and discuss some of its

justifications. I think that Groarke uses three of the four justifications for reconstructive

deductivism discussed in chapter one to support NLD. But before I get into a discussion

of Groarke's justifications, a description of how Groarke would apply NLD in argument

evaluation is needed.

Groarke claims that reconstructive deductivism should be applied to any

argument. He even thinks that inductive arguments ought to be reconstructed as

deductively valid. Groarke asserts that "we can treat all arguments as deductive"

(Groarke 1999: p. 14), including what he terms, "so called inductive arguments' (Groarke

2002: p. 281). Louis Groarke, picking up on his brother's point in an article titled 'A

Deductive Account of Induction' suggests that "inductive arguments are in a proper

technical sense, deductively valid and that their conclusions are entailed by their

premises" (Groarke 2000: p. 354). For Leo Groarke, then, a classical inductive argument

like

1. Every swan I have thus far observed is white.

2. Therefore, all swans are white.

can be reconstructed as deductively valid because the arguer, according to Groarke, may

be understood as committed to a premise like 'the swans I have observed thus far are a

representative sample of swans'. Another example of a deductivist reconstruction of

arguments that are typically treated as non-deductive is the following:

> 'Howl' is superficial and dated. 'The Second Coming' has
>
> profound social significance. Therefore, 'The Second Coming' is
>
> a finer poem *than* 'Howl' (Groarke 1999: p. 7).

This argument, according to Groarke, which is an example he adopts from Conway and

Munson's description of non-deductive arguments, can be reconstructed as deductively

valid through the addition of an implicit premise. The argument would then be

reconstructed in the following manner:

> 'Howl' is superficial and dated. 'The Second Coming' has
>
> profound social significance. *A poem which has profound social*
>
> *significance is a finer poem that one which is superficial and*
>
> *dated.* Therefore, 'The Second Coming' is a finer poem than
>
> 'Howl' (Groarke 1999: p. 8).

An arguer advancing an argument like the one above might respond to the criticism that

"a poem which is superficial has technical merits that make it superior to one which has

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profound social significance" by restating the "conclusion as the claim that 'The Second Coming' is probably better than 'Howl'" and the implicit premise as the claim that, "'A poem which has profound social significance is *probably* a finer poem than one which is superficial and dated'" (Groarke 1999: p. 8).

Groarke thinks a reconstructive deductivist strategy like the one just illustrated can be applied to all arguments. Through adding appropriate modal qualifiers and implicit premises we can turn any argument, so thinks Groarke, into a deductive argument. We can then evaluate the argument by assessing the acceptability of the premises of the reconstructed argument. Gerritsen describes this reconstructive deductivist strategy as follows:

> The distinction between deductive and inductive arguments mainly
>
> concerns a difference in the degree of certainty of the inference
>
> from the premises to the conclusion. It is possible to incorporate
>
> this degree of certainty in the analysis without abandoning the
>
> deductive framework. This can be achieved by adding specific
>
> semantic indicators of the strength of the inference ('It is likely
>
> that . . .', 'I feel it is certainly so that . . .') to either the premises or
>
> the conclusion if such indicator words are absent from the original.
>
> (Gerritsen 2002: p. 57)

Here are a few other examples of this approach to argument reconstruction that Groarke takes from Conway and Munson's (1997: p. 40-47) description of non-deductive

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arguments. Groarke thinks all of these can be reconstructed as deductively valid arguments:

1. Ninety-six percent of adult Americans watch television more than ten hours per week. Davis is an adult American. Therefore, Davis watches television more than ten hours per week.

2. Every wolverine so far encountered by humans has been unfriendly and aggressive. Therefore, all wolverines are unfriendly and aggressive.

3. Congressman Smith would be an excellent senator because he was born on Independence Day.

Groarke reconstructs these arguments as deductively valid by adding the following premises:

1*. *Davis is among the ninety-six percent.*

2*. *All wolverines are like the ones so far encountered by humans.*

3*. *Someone born on Independence Day would make an excellent senator.*

Arguments (1), (2), and (3), respectively, are evaluated by assessing the acceptability of the premises (1) and 1*, the premises (2) and 2*, and the premises (3) and 3*. Groarke

thinks examples like these illustrate how all arguments can be evaluated by reconstructing them as deductively valid, even arguments that have traditionally been treated as irreducibly non-deductive.

2.6 Groarke's Justifications for Reconstructive Deductivism

For the time being, I want to set aside questions about whether Groarke's version of reconstructive deductivism can be applied to evaluate all arguments. I think there are some problems with such a claim. I propose, however, to forego discussing these problems until the next two chapters, where I will cover some criticisms of reconstructive deductivism. For the present, I want to examine the reasons that Groarke uses to provide a justification for reconstructive deductivism. Because all arguments, according to Groarke, *can* be reconstructed as deductively valid, it does not follow that all arguments *should* be reconstructed as deductively valid. Groarke must provide reasons for why we should reconstruct arguments as deductively valid.

In the last chapter, I presented four different justificatory strategies for reconstructive deductivism: ontological, psychological, normative, and pragmatic. Part of the reason why Groarke's NLD is a good representative of reconstructive deductivism is that Groarke uses three of the above four possible justificatory strategies to justify reconstructive deductivism. Groarke, on my understanding, uses weak psychological, strong normative, and pragmatic, justificatory strategies.

Groarke's weak psychological justification for reconstructive deductivism is based on a conceptual analysis of the speech acts involved in 'making an argument.' He

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connects this justification for reconstructive deductivism with the *pragma-dialectical* (1992) analysis of argumentation (Groarke 1999: p. 6).

The pragma-dialectical school of argumentation theory has developed a method for evaluating critical discussions aimed at resolving a difference of opinion. The two founders of pragma-dialectics were Frans H. van Eemeren and Rob Grootendorst. Pragma-dialecticians incorporate both normative and descriptive components into their theory of argumentation. The importance of a theory that integrates both the normative standards involved in critical discussions, with an empirical description of the actual speech acts that are used during critical discussion, is defended in the following passage:

> Scholars of argumentation are interested in how argumentative
>
> discourse can be used to justify or refute a standpoint in a rational
>
> way. In our opinion, argumentative discourse should therefore be
>
> studied as a specimen of normal verbal communication and
>
> interaction and it should, at the same time, be measured against a
>
> certain standard of reasonableness. If pragmatics is taken to be the
>
> study of language use, the need for this convergence of normative
>
> idealization and empirical description can be acknowledged by
>
> construing the study of argumentation as part of 'normative
>
> pragmatics' (van Eemeren and Grootendorst 1992: p. 5).

In *Argumentation, Communication, and Fallacies* (1992), van Eemeren and Grootendorst postulate a normative idealization of argumentative discourse which consists of a series

of different types of speech acts—such as assertives, commisives, directives, and usage declaratives—preformed at different stages of an argumentative exchange—such as the opening stage, the confrontation stage, the concluding stage, and the argumentation stage. Speech acts can be distinguished as *elementary* and *complex* speech acts. Elementary speech acts are made at the sentence level. They are individual expressions. A *complex* speech act is a complex of several speech acts some of which may be implicit in what a speaker ostensively says. An argument, for instance, can be considered a complex speech act. Another example of such a speech act might be an explanation. Pragma-dialectics offers normative standards for argumentative exchanges and ways of characterizing the use of speech acts in such exchanges. Pragma-dialecticians analyze an argumentative discourse by determining what speech acts the interlocutors in the exchange use at the various stages of argumentation and then make judgments about that discourse by determining to what extent it follows the normative idealization of argumentative discourse.

Van Eemeren and Grootendorst (1992) laid out conditions for identifying a speech act complex as an argument. That is to say, if we are able to understand a speaker as advancing an argumentation for a standpoint she desires to defend (or against a standpoint she intends to criticize), then she must make utterances that satisfy certain "*identity*" and "*correctness*" conditions (van Eemeren and Grootendorst's 1992: p. 30). For a complex speech act to be considered an argument, it must meet two identity conditions, "if these conditions have not been fulfilled, it is not possible for the listener to decide whether he is dealing with a promise, a request or a statement and what it entails" (van Eemeren and Grootendorst 1992: p. 30). With respect to some proposition p that is

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endorsed by a speaker, a set of utterances 1, 2, . . ., n can "be considered a performance of the complex speech act of argumentation, [when] two sorts of identity conditions have. . . [been] met:"

1. *Propositional content condition*: utterances 1, 2, . . . n

   constitute the elementary speech acts 1, 2, . . . , n, in which a

   commitment is undertaken to the propositions expressed.

2. *Essential condition*: the performance of the constellation of

   speech acts that consists of the elementary speech acts 1, 2, . . .

   , n, counts as an attempt by the speaker to justify *p*, that is to

   convince the listener of the acceptability of his standpoint with

   respect to *p*. (van Eemeren and Grootendorst 1992: pp. 30-31)

If these conditions are not present in a speech act complex, then that speech act complex cannot be considered a performance of argumentation. In addition to the identity conditions, there are also two correctness conditions that "must be fulfilled for the utterance concerned to be an appropriate performance" (van Eemeren and Grootendorst 1992: p. 30) of speech act argumentation. Having satisfied the identity conditions, there are several ways that a speaker can fail to meet the correctness conditions of the speech act complex of argumentation. The following are the correctness conditions that must be met for a speaker to correctly engage in the complex speech act of argumentation:

1. *Preparatory Conditions*:

   a. The speaker believes that the listener does not accept (or at least not automatically or wholly accept) his standpoint with respect to p.

   b. The speaker believes that the listener is prepared to accept the constellation of elementary speech acts in 1, 2 . . . , n.

   c. The speaker believes that the listener is prepared to accept the constellation of elementary speech acts 1, 2, ... , n as an acceptable justification of p.

2. *Responsibility Conditions*:

   a. The speaker believes that his standpoint with respect to p is acceptable.

   b. The speaker believes that the propositions expressed in the elementary speech acts 1, 2, . . . , n are acceptable.

   c. The speaker believes that the constellation of the elementary speech acts 1, 2, . . . , n is an acceptable justification. (van Eemeren and Grootendorst: p. 31)

Groarke adopts an interpretation of these analytic conditions for the very act of making an argument that he thinks justifies a reconstructive deductivist strategy. He argues, based on a conceptual analysis of the speech act 'argument', that we can ascribe beliefs to any arguer which warrant a deductive reconstruction of their argument. Groarke says:

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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 'If the premises of my argument are true then the conclusion is true'. This follows directly from the implications of the speech acts 'argument' and 'assertion', for any arguer who argues for some conclusion C on the basis of some set of premises purports to **believe** that C is true and the her premises *justify* this **belief**. (cf. van Eemeren and Grootendorst: 1992 pp. 30-31) In this sense, their argument declares that they believe that these premises imply the conclusion and that the conclusion is true if the premise are true. It is perhaps worth noting that they are committed to the latter conditional not merely in the sense of material implication, but in the stronger sense that they must **believe** there is a relationship between their premises and their conclusion which makes it reasonable to base a **belief** in the latter on a **belief** in the former. (Groarke: 1999 pp. 6-7 bold added)

In this quotation I understand Groarke to be employing both a weak psychological justification as well as a normative justification for reconstructive deductivism. I will first explain Groarke's use of the weak psychological justification, and then I will discuss his use of the normative justification.

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Part of what Groarke is claiming in the above quotation is that one consequence of the correctness and identity conditions for 'making an argument' is that the interpreters of arguments are justified in reconstructing any argument as deductively valid. If an interpreter fails to recognize that an argument may be reconstructed as deductively valid, then the interpreter has failed to capture an arguer's commitments and beliefs relevant to the argument. The interpreter, claims Groarke, would have failed to supply the beliefs that are needed for the conclusion to be justified by the premises. Groarke has good reason to think that this is a consequence of the correctness and identity conditions of the complex speech act 'argument'. In fact, van Eemeren and Grootendorst take this to be one consequence of the identity and correctness conditions:

> If the speaker is sincere and does not believe that his
> argumentation is futile, this also means that he assumes the listener
> will include the criterion of logical validity: because of the
> responsibility condition the speaker may be assumed to believe
> that the argument underlying his argumentation is valid, and
> because of the preparatory condition he may be assumed to believe
> that the listener will believe this too. (van Eemeren and
> Grootendorst 1992: p. 62)

It is in this sense that Groarke advocates the view that "all arguments should be understood as attempts at deductive arguments" (Groarke 1999: p.1). We can understand all arguments as deductively valid because underlying every argument—as a condition of

its being an argument—the arguer must be attributed beliefs which allow the argument to be understood as an attempt at a deductively valid argument. Hence, according to Groarke, an evaluator of arguments is always warranted in reconstructing arguments so that they are deductively valid. Failure to so understand arguments as deductively valid, thinks Groarke, would be tantamount to the evaluator of the argument failing to recognize that "any arguer who argues for some conclusion C on the basis of some set purports to **believe** that C is true and that her premises *justify* this belief" (Groarke 1999: p. 6). For if the evaluator recognized this relationship which the arguer purports to hold between her premises and her conclusion, then the evaluator would also recognize that the arguer is committed to the truth of the claim that 'if the premises of my argument are true, then the conclusion is true.' Given this belief we can always, at minimum, add the argument's associated conditional (a hypothetical conditional statement with the given premises as antecedent and the conclusion as consequent) and give the argument the deductively valid argument form—*modus ponens*. Adding this conditional, thinks Groarke, is always consistent with an arguer's beliefs and commitments. If we do not think that we can add this conditional to an argument, then the purported argument must not have satisfied—in our minds at least—a necessary condition of being an argument. Its arguer must not have believed that her argument's premises justify her conclusion; or, in other words, that her conclusion follows from her premises. Therefore, asserts Groarke, as a very condition of making an argument an arguer must adopt a stance towards her argument that warrants an interpreter in reconstructing that argument as deductively valid.

I understand Groarke to be, in part, making a claim about an arguer's beliefs based on a conceptual analysis of the speech acts 'argument' and 'assertion'. Groarke's

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conceptual analysis of argument leads to consequences for what arguers must believe in order to be understood to be making an argument. Based on this (psychological) claim we have, according to Groarke, a reason to reconstruct arguments as deductively valid.

Groarke's version of the psychological justification for reconstructive deductivism explicitly disavows that arguers have any special intention about how their conclusion follows from their premises. Groarke makes clear that "ordinary reasoners do not distinguish the kinds of argument and persuasion which argumentation theory proposes as fundamentally different kinds of argument" (Groarke 1999b: p. 36). This quotation draws a distinction between arguments, and how arguments are understood and evaluated by argumentation theorists. Argumentation theorists do not aim to assess the intentions of arguers but to classify and evaluate arguments. Groarke's version of deductivism understands all arguments to be deductive regardless, of what intention the arguer had when making the argument.

Now one justification that Groarke adopts to understand arguments such that they are deductively valid is Groarke's conceptual analysis of 'argument' and 'assertion'. This analysis attributes beliefs to arguers that allow for a deductive reconstruction of any argument they make. I consider it a psychological justification of reconstructive deductivism because it is based on the arguer's beliefs. It should be recognized that this justification does not rely on a special interpretation of the arguer's intentions it only relies on the arguer having a commitment to certain beliefs that allow for a deductive reconstruction of her arguments.

Some critics of deductivism have also described this version of the psychological justification as a possible defense for reconstructive deductivism. In critiquing

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reconstructive deductivism, Govier describes a version of what I take to be the psychological justification.

> If a person argues for a conclusion, C, then provided he or she is
> arguing sincerely, he or she believes C to be true. If that person
> believes C to be true, then he or she must believe a set of claims
> which entails C. Thus, if the arguer's stated premises do not entail
> C, it is appropriate to supplement them to the point where they do
> entail C (Govier 1987: p. 89)

Because every arguer, according to this version of psychological deductivism, has beliefs that justify a reconstruction of the argument such that the premises entail the conclusion, every argument that does not entail its conclusion textually—that is, in its original form as a written or spoken piece of language—can be turned into a deductively valid argument without distorting what the arguer means. We can reconstruct the example "it's snowing, so it's cold," in the following way:

1. If it's snowing, then its cold.
2. It's snowing.
3. Therefore, it's cold.

Premise (1) is implicit. However, according to psychological deductivism, we can know that the arguer believes that "if (2) then (3)." The arguer, therefore, believes in the

acceptability of a statement that would make the conclusion a necessary consequence of the premises and we are, thus, justified in reconstructing the argument as deductively valid.

The claim that every arguer believes in the truth of the associated conditional of their argument does not mean that simply adding the associated conditional is the best way to reconstruct the argument. It very well may be the case that in reconstructing an argument as deductively valid, it will be better to add some other premise that is not the associated conditional, but links the premise with the conclusion. In the earlier examples of Groarke's reconstructions of deductively invalid arguments, Groarke did not simply add the associated conditional of the argument, but instead he added a premise that takes the form of a generalization which when added to the original argument makes it deductively valid. In an argument like the following,

1. Sheriton is a child.

2. Therefore, Sheriton is innocent.

we would not add the premise "if Sheriton is a child, then Sheriton is innocent." Instead, to deductively reconstruct this argument, we would add the premise "Children are innocent." The fact that arguers have a belief in the truth of their argument's associated conditional only establishes that they adopt a stance in making an argument that warrants an interpreter to reconstruct their argument as deductively valid. Adding an argument's associated conditional might not be the best way to interpret the argument. That the arguer believes in the truth of the associated conditional only warrants an interpreter to

reconstruct the argument as deductively valid. Other premises might be less trivial and a more accurate reflection of the arguer's intentions in making the argument. If there are other premises that are more likely to capture the arguer's commitments, then it is these premises that should be added in reconstruction. Another example is the Socrates argument:

1. Socrates is a man.
2. Therefore, Socrates is mortal.

Practically no one would add this argument's associated conditional if asked to supply its missing premise. Rather they would reconstruct this argument by adding the premise "all men are mortal."

The other justificatory strategy represented in the quotation under discussion (page 40) is a normative justification for reconstructive deductivism. As we have seen, Groarke claims that every arguer must believe that their premises justify their conclusion. If the arguer does not think that their premises have provided justification for their conclusion, then the arguer cannot believe that their premises are reasons to endorse their conclusion. For Groarke because an arguer holds that their conclusion is justified by their premises they can be understood as having a commitment to the claim that, 'if the premises of my argument are true then so is the conclusion'. That is to say, if a conclusion can be said to be justified by its premises, then the conclusion can be understood so that it is entailed by the premises. This follows from Groarke's claim that an arguer "must believe that there is a relationship between their premises and their

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conclusion which makes it reasonable to base a belief in the latter on a belief in the former" (Groarke 1999: p. 6), where he thinks that what makes it *"reasonable* to base a belief" in the conclusion on a belief in the premises is the claim that 'if the premises of the argument are true then the conclusion is true.' We can, therefore, understand every argument as deductively valid. Arguments that are not transparently deductively valid have implicit premises that can be added to the argument that make the argument transparently deductively valid.

We have seen two justifications for reconstructive deductivism used by Groarke. We have examined his justification for reconstructive deductivism on weak psychological grounds; that is, based on beliefs that must be attributed to any arguer. We have also examined his justificatory strategy from normative grounds; that is, based on a normative standard for premises to rationally support a conclusion. Groarke also takes reconstructive deductivism to be justified for pragmatic reasons. Groarke says:

> It is one thing to show. . . [non-deductive arguments] can be
>
> understood as deductive arguments. It is another thing to show
>
> that this is a useful thing to do. (Groarke 1999: p. 8)

And:

> The utility of deductivist argument reconstruction is highlighted by
>
> approaches to argument which are, like pragma-dialectics,
>
> dialectical and 'resolution oriented.' Such views underscore the
>
> point that we should develop theories of argument which can help
>
> identify the issues that need to be addressed in dialectical

exchange. This is a goal which is well served by deductivist

reconstruction, for the unexpressed premises it identifies often

expose assumptions which need to be a focus of discussion when

we decide whether an argument should be accepted. (Groarke

1999: pp. 8-9)

Here Groarke is advancing the pragmatic usefulness of deductivism as a theory of

argument evaluation. Through the reconstructive deductivist method of adding premises

that make the argument deductively valid, Groarke claims that we will add premises that

should be a focus of discussion. Through the addition of these unexpressed premises and

their subsequent evaluations we are able to advance the dialectic of a critical discussion.

This advancement of critical discussion about the claims made during an argument is

useful because it will allow us to determine whether or not an argument is any good. We

can, therefore, adopt reconstructive deductivism on the grounds that it is a useful way to

evaluate arguments. Take any argument, add a valid-making premise to it, then assess

the acceptability of the premises. The acceptability of the premises will correspond to the

logical strength of the inference. For example, the argument,

1. Snakes can dance.

2. Therefore, Snakes are musical.

can be turned into a valid argument by adding the premise

1i. Anything that dances is musical.

The premise-conclusion link between (1) and (2) can then be evaluated by assessing the acceptability of (1) and (1i). We might, generously, grant that (1i) is an acceptable premise because dancing things usually require a sense of rhythm and, hence, may be thought of as musical (even if, potentially, in a very deficient sort of way). But it seems a stretch to claim that snakes are musical (even the swaying Indian Cobras are more attracted to the movement of the snake charmer than they are to the music coming from the flute) and so premise (1) is not acceptable. Therefore, based on this assessment of the reconstructed argument's premises, the original invalid argument was not a good argument. Through using this reconstructive deductivist strategy we can usefully evaluate arguments. We can expose underlying assumptions, determine whether they are acceptable or not, and advance the critical discussion to move towards a rational resolution of the topic at hand.

Another useful reason for the adoption of reconstructive deductivism is that it is simpler to adopt one straightforward methodology for argument evaluation than to adopt many different standards for reconstructing and evaluating arguments. In considering the question of whether we should adopt a deductivist theory of argument or a theory, for instance, like what Groarke terms 'inductivism'—which includes, in addition to methods for evaluating deductive arguments, methods for evaluating inductive arguments—the important factor that suggests we should adopt reconstructive deductivism . . .

is that deductivism is favored by Ockham's Razor, for it replaces

two conceptions of inference with one and can in the process

greatly simplify our account of natural language argument. Given

that we can treat all arguments as deductive, why follow the

standard practice . . . and introduce a distinct conception of

inductive argument. (Groarke 1999: p. 14)

Having one useful heuristic that can be used to evaluate any argument, whether that

argument be inductive, conductive, analogical, abductive, etc., is much simpler than

having several methods to evaluate these arguments.

Reconstructive deductivism offers a useful way to understand and evaluate

arguments. Other approaches which use many different standards of evaluation multiply

classification schemes and evaluative strategies beyond necessity because all arguments

can be understood and evaluated, according to Groarke, as deductively valid arguments.

Regardless of what beliefs an arguer may or may not have, or even whether any

justificatory structure can be grasped as implicitly deductively valid, the pragmatic

method of justification states that all arguments are usefully evaluated as deductively

valid. Classifying arguments as deductively valid is useful because it avoids the need of

identifying a multiplicity of reconstructive strategies for argument evaluation. It is better

to be a deductivist, according to Groarke, "with one good trick" than to have to classify

arguments according to a plethora of types each with its own different evaluative strategy

and have, so to speak, "a bag of tricks" (Groarke 1999b: p. 44).

In practice, arguers rarely make claims about how their premises are connected with their conclusion. It is argumentation theorists who make such claims and classify ordinary arguments as, for instance, either deductive or inductive arguments. Groarke maintains that "the inductive/deductive distinction is a theoretical distinction which is imposed on ordinary argumentation, rather than one which guides it in practice. And it is a distinction difficult to apply in practice, for those arguments normally classified as inductive arguments can usually be construed as deductive enthymemes which include implicit premises and conclusion" (Groarke 1999b: p. 37). This difficulty in classifying ordinary arguments according to the deductive/inductive distinction is amplified when "the plethora of distinctions which now characterize many variants of argumentation theory" (Groarke 1999b: p. 37) are introduced into a classification and evaluation scheme for argumentation. Groarke's version of deductivism is useful because it does not run into such classification problems. According to Groarke, all arguments can be understood as deductively valid arguments and can be evaluated according to the methodology of reconstructive deductivism.

It is important to note that the pragmatic justifications *can* work independently of normative and psychological justifications. Psychological justifications for reconstructive deductivism make claims about arguers' intentions and/or beliefs that justify our reconstruction of arguments as deductively valid. Normative justifications state that arguments are such that, in order to be seen as arguments, can be reconstructed so that they are deductively valid. Pragmatic justifications, by contrast, only say that reconstructing arguments as deductively valid is useful in logical and dialectical evaluation. It is entirely possible, on the pragmatic justification, that there are many

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different normative standards for good argument, or that arguers have beliefs that their conclusion follows from their premises without being entailed by them. All that pragmatic justifications contend is that reconstructing arguments as deductively valid is a useful way to evaluate arguments and advance critical discussion surrounding them, and that it is simpler than adopting a theory of argument which includes several different methods of evaluation.

2.7 Conclusion

In this chapter an account has been developed of reconstructive deductivism within the informal logic and argumentation theory literature. We began by looking at the historical development of informal logic and explained how deductivism fits within this tradition. We then looked specifically at Leo Groarke's version of NLD. Examples of how Groarke applies this strategy to real world arguments including typically non-deductive arguments were offered. I then showed that Groarke uses three of the four different justificatory strategies that were outlined in the previous chapter: psychological, a normative, and a pragmatic justificatory strategy. His psychological strategy attributes beliefs that must be attributed to arguers as a necessary condition of them being understood to be making an argument. The beliefs that are attributed to an arguer, Groarke claims provide us with a reason to reconstruct any argument as deductively valid. Groarke's normative justification for reconstructive deductivism identifies that all rational structures can be understood as deductively valid structures. A norm or standard placed on any claim-reasons complex is that "if the premises are true, then the conclusion

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is true". Therefore, we are justified in reconstructing an argument as deductively valid. However, because we can understand all arguments as deductively valid does not mean that we ought to treat them as such. Groarke's pragmatic justifications for reconstructive deductivism asserts that reconstructive deductive is a more useful method of understanding and evaluating arguments then the alternatives. For Groarke, it is simpler than adopting several different it advances critical discussion and it is better than adopting several different evaluative standards and classificatory categories. The pragmatic justification of reconstructive deductivism, therefore, supplements the other justificatory methods by not only establishing that all arguments may be interpreted as deductively valid, but by showing that there is pragmatic efficacy in doing so.

In the next chapter we will look at some of the criticisms of deductivism that have been raised in the informal logic literature. In the last chapter, I will raise some of my own criticisms.

CHAPTER III

THE DIALECTICS OF DEDUCTIVISM

3.1 Overview

In the last chapter I explained the theory of inferential adequacy developed by Leo Groarke and examined the justifications that he employs for this theory. In this chapter I am going to cover some of the criticisms raised against Groarke's position from within the informal logical and argumentation theory communities. I will also examine Groarke's responses to those criticisms. In the next chapter I am going to raise some of my own criticisms of reconstructive deductivism and show how they bear on Groarke's view.

3.2 Introduction

Having gotten hold of what reconstructive deductivism is and what justifications have been used to support it, we can now look at some criticisms of deductivism that have been developed in the informal logic literature. I will evaluate both Govier's and Johnson's criticisms, and Groarke's responses to them. One trend that emerges is that both Johnson and Govier, while critiquing reconstructive deductivism, advance arguments that are more effective against normative deductivism and the normative justification for reconstructive deductivism. Govier was concerned with the sorts of deductivism that were being advanced in the broader philosophical community such as in

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Gerald Nosich's *Reason and Arguments* (1982) (Govier 1987: p. 22-24). Johnson's main criticism is directed against FDL and the version of deductivism that Groarke develops in Groarke (1992), which seems to have greater affinity with normative deductivism than it does with Groarke's more mature views articulated in (1999) and (2002). While Groarke (1992) is advocating a version of "'reconstructive' deductivism" (Groarke 1992: p. 114), he is also endorsing a version of normative deductivism quite explicitly. The point that I will develop is that the criticisms raised by Johnson and Govier apply to normative deductivism but are not as effective against reconstructive deductivism. It is still useful, however, to evaluate these criticisms because (1) important components of Groarke's defense of normative deductivism are incorporated into later accounts of reconstructive deductivism and (2) because the criticisms raise important points that a plausible version of deductivism must be able to address.

The structure of the chapter is as follows. I start by looking at Govier's criticisms of deductivism and Groarke's response. Next I will look at Johnson's criticism of FDL-deductivism and Groarke's response to these criticisms. Johnson lists seven adequacy conditions that any plausible theory of argument must satisfy and then claims that FDL-deductivism does not satisfy four of those adequacy conditions. I conclude with the point that the criticisms raised by Govier and Johnson are more compelling criticisms of normative deductivism and the normative justification for reconstructive deductivism. But these criticisms need not transfer to problems with NLD.

3.3 Govier's Criticisms of Deductivism

In the article, "In Defense of Deductivism: Replying to Govier," Groarke describes his project as "sketching a defense of the view, common in formal logic, that all good arguments are deductively valid" (Groarke 1992: p. 111). It would seem that here Groarke is more interested in defending a version of normative deductivism—the view that all good arguments should be construed as deductively valid—than he is in defending the version of reconstructive deductivism which he develops in the 1999 and 2002 articles. Although in the 1992 article, Groarke does adopt a reconstructive strategy for argument evaluation, this strategy is used as way to make plausible the view that good arguments are deductively valid. In the 1992 article Groarke picks out three problems with deductivism that are raised in Govier's critique: (1) deductivism places "too much emphasis on deductive validity, failing to allow for different degrees of logical support," (2) deductivism "eliminates all talk of fallacies," and (3) deductivism "leaves us with the insurmountable task of providing a plausible policy for reconstructing arguments which are, on the face of it, deductively invalid" (Groarke 1992: pp. 114-115). These objections, as Godden points out, are "the standard objections to deductivism as identified by Groarke and Gerritsen" (Godden 2005: p. 170), and attributed to logicians such as Govier. I want to look at these criticisms and see whether Groarke's responses to them are adequate.

The first criticism—that deductivism places "too much emphasis on deductive validity" (Groarke 1992: p. 114)—is related to a criticism developed by Stove (1970).

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Stove makes five general observations about gradations of support that premises can provide for their conclusion:

> First: some arguments are 'positively conclusive' . . . . That is, a completely rational being who knew or believed in their premises would have a positive degree of belief in their conclusion. Second, some arguments are 'absolutely conclusive' . . . . That is, a completely rational being who knew or believed the premises would have in the conclusion a positive degree of belief not less than that which he has in the premises. Both of the foregoing propositions are proved by the example of valid arguments; for any valid argument is absolutely conclusive and *a fortiori* positively conclusive. . . . Third: some arguments are 'absolutely inconclusive'. . . . A completely rational being . . . who knew or believed (only) their premises would not have any positive degree of belief in their conclusion. Examples to prove this proposition can easily be concocted artificially, if they should be thought not abundant enough in real life. Fourth: some arguments are 'more conclusive' . . . than others. Two arguments, that is, are sometimes such that, of two completely rational beings who knew respectively only the premises of one of the arguments, one would have some positive degree of belief in the conclusion, while the other would have, in the other conclusion, either a lower positive degree of belief or else no positive degree of belief at all. . . . Fifth: all absolutely irrational arguments are invalid. (Stove 1970: pp. 76-77)

Stove then goes on to discuss differing standpoints on the question of: "Are all invalid arguments absolutely irrational?" (Stove 1970: p. 77). One standpoint, which Stove calls Probabilism, answers in the negative to the above question, while the other standpoint, which Stove calls Deductivism, answers in the affirmative. Probabilism, according to Stove, is the thesis that, "some invalid arguments are more conclusive or more reasonable than others" while Deductivism is the "contradictory of Probabilism" and asserts that "all invalid arguments . . . are absolutely irrational; or there are no different degrees of support or reasonableness among invalid arguments" (Stove 1970: p. 77). Stove then goes on to argue some invalid arguments are more conclusive than others. He gives the following example: "'This is a flame, so it is hot' and 'This is a flame, and all of the many flames observed in the past have been hot, so, this is hot'." Stove says, "both are invalid. If deductivism is true, both are therefore, absolutely irrational, and neither is more conclusive than the other. But one of these inferences is more conclusive then the other. Whence Deductivism is false" (Stove 1970: p. 89).

This criticism is picked up by Govier. However, it applies to normative deductivism more so than it does to reconstructive deductivism. The criticisms most effectively applies to the sort of deductivism articulated by Nosich when he asserts:

> Truth and validity are two basic concepts in logical analysis because, for
> an argument to be sound (to prove its conclusion), it must be both valid
> and have true premises. Moreover, if you have a valid argument and all of
> its premises are true you have proved the conclusion. When it comes right

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down to it, validity and truth of the premises are all there is to a good

argument. (Nosich 1982: p. 27)

The importance of Stove's criticism is to show that there are invalid arguments that are

more rational than others and that not all invalid arguments are bad. There are some

invalid arguments that are good and, therefore, the view that all good arguments are

deductively valid is false. If you recall earlier chapters, a reconstructive deductivist using

the pragmatic justification is open to the existence of invalid arguments that are good;

they just claim that such arguments should be *evaluated* by making them deductively

valid arguments. Therefore, this criticism would not directly undercut a reconstructive

deductivist thesis, though it would raise questions about the viability of a normative

deductivist thesis. Nevertheless, Groarke (1992) aims to defend the view not only that

non-deductive arguments should be reconstructed as deductively valid arguments, but

that the only good arguments that are transparently invalid have "implicit premises that

guarantee their validity" (Groarke 1992: p. 114). So, I think, at least the reconstructive

strategy that Groarke is advancing to respond to the criticisms of Govier has closer

affinities with normative deductivism than do his later defenses.

However, Groarke (1992) develops a response to Govier's criticism that

illustrates how deductivism—even of a normative variety—could address the problems of

why some invalid arguments are better than others. Groarke's response advances the

view that these arguments are not really invalid, but that they have implicit premises that

make them valid arguments, and that these implicit premises can be assessed as having

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different degrees of acceptability from good to bad that will correspond to the overall acceptability of the argument.

Groarke thinks "there are ways that a deductivist can account for the inconclusive nature of arguments" (Groarke 1992: p. 115). This enables a deductivist to resist the Stove/Govier criticism that it cannot allow for different degrees of logical support. If deductivism can maintain the view that "all arguments are deductively valid" and still account for the inconclusive character that many natural arguments have, then deductivism is not committed to the view that all arguments have the same degree of support. Therefore, if Groarke is correct that deductivism can offer a viable way of evaluating arguments that have varying degrees of conclusiveness (strength), then it is not radically out of step with the ordinary practice of making arguments that do not advance necessary support for their conclusion. Instead deductively valid arguments can have probable, acceptable, tentative, or other types of conclusions. Groarke thinks arguments can both have conclusions that are entailed by their premises and also be probabilistic, acceptable, plausible, tentative, and all other degrees of certainty. If this is the case, then he can respond to the Stove/Govier critique by claiming that while deductively invalid arguments are equally bad arguments, this criticism is not problematic for deductivism. It is not problematic for Groarke because deductive validity can portray any degree of support that 'so called' inductive arguments can exhibit. He gives a couple of examples of arguments that entail probable and plausible conclusions to illustrate this point. They are as follows:

1. If Lithuania ever leaves the Soviet Union, its economy will probably decline.

2. Lithuania will eventually leave the Soviet Union.

3. Therefore its economy will probably decline. (Groarke 1992: 115)

And:

1. The examination of a random sample of Brand X computers manufactured in 1989 shows that 95% of them are defective.

2. Therefore it is probable that there is something wrong with the one you bought. (Groarke 1992: p. 115)

Groarke claims that both these arguments are deductively valid—the first one in virtue of "the rules of propositional logic. . . . The second. . . in virtue of the meaning of the term probable" (Groarke 1992: p. 115). Both examples have inconclusive conclusions in the sense that the conclusion does not make an unqualified judgment about Lithuania's economic decline or about the quality of the brand X computer you bought; but the arguments, so Groarke claims, are deductively valid, nevertheless. According to Groarke, if their premises are true, then their conclusion must also be true. We might challenge the premises of the argument by stating that there is no evidence to think that Lithuania's economy will decline. One might say that Lithuania has abundant untapped natural resources and the will and capability to take advantage of these resources, so the Lithuanian economy will not decline. The premise, then, that Lithuania's economy will probably decline would not be true. This does not mean that the argument is not deductively valid. The premises still entail a conclusion that is a probabilistic claim from

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premises that are probabilistic claims. Deductive arguments, such as the above, therefore, seem to be able to exhibit support for their conclusions that is less than conclusive.

That deductive arguments can portray differing degrees of conclusiveness would seem to provide a reply to Stove's criticism. One needs to be cautious here, though. Groarke's reply could not be that invalid arguments can be better than other invalid arguments—all invalid arguments would remain equally inconclusive. Groarke's reply is rather that a deductivist can show why some arguments which are transparently invalid seem better than others. The deductivist would simply make explicit the implicit premise and evaluate its acceptability; the more acceptable the premise, the better the argument. Therefore, the reason why some invalid arguments are better than others is that they have implicit, valid-making premises that are more acceptable than other valid-making premises. Groarke's reply is not that some invalid arguments are better than other invalid arguments, but that some invalid arguments have valid-making assumptions that make them better than other invalid arguments.

A common mistake made in regards to the nature of deductive inference, according to Groarke, is that deductive inferences are often treated as $P \rightarrow \Box C$: that is, the premises of a deductive argument "entail a necessary conclusion" (Groarke 1999: p. 3). In fact, however, deductive arguments have the following form $\Box (P \rightarrow C)$. This form implies that ($\Box P \rightarrow \Box C$), not that $\Box C$ follows from P; that is to say, deductive arguments operate in such a way that the conclusion is just as necessary as the premises (Groarke 1999: p. 3). Groarke claims that this logical fact about the nature of deductive inference

. . . 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'. In natural language arguments, this means that the conclusion of a good deductive argument is more often probable or plausible than necessary, for the premises of such arguments are rarely certain. (Groarke 1999: pp. 3-4)

Thus, the degree of certainty in the premises will carry over to the degree of certainty in the conclusion in a valid argument. In a valid argument the degree of acceptability of the conclusion varies directly with the degree of acceptability of the weakest premise. Many possible degrees of support may be conceived. For instance, the following is a valid deductive argument:

1. If an election were called in the near future, there is a small chance that the NDP would win.
2. A federal election will be called in the near future.
3. Therefore, there is a small chance that the NDP will win that election.

However, there is a low degree of probability, "a small chance" that the claim that 'the NDP will win the next election' is true. It is possible that they could win. It is, however, true that it is probably not the case that they will win. The conclusion is entailed by the premises, but what is entailed is not that the NDP will win, only that there is a small chance that the NDP will win the next election. Hence, the conclusion of the above

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argument does not make a conclusive judgment about the success of the NDP in the next federal election but rather, according to Groarke, the conclusion which makes the inconclusive judgment that 'there is a small chance the NDP will win' is entailed.

I think there are problems with this line of defense that Groarke develops against the Stove/Govier criticism. However, I want to forego discussion of these problems until later in this chapter and the next chapter. We will see that Johnson is also concerned about deductivism's ability to portray arguments that offer different degrees of support for their conclusion. I think that this criticism raised by Johnson and Govier poses some troubles for deductivism and that Groarke' response, developed above, does not completely eliminate those concerns. But I propose to set these issues aside for the time being and pick them up again later.

What about Govier's second criticism that deductivism removes all talk of fallacies? Govier says,

A fallacy is an error in reasoning. Logical tradition advises that fallacies do exist. Fallacies in the logical sense are not mistaken assumptions or beliefs; they are errors in *reasoning*. For fallaces in this sense to exist, people must sometimes make mistakes in *inferring* conclusions from premises. . . But on the common understanding of 'fallacy', there may be no fallacies for the deductivist, because every argument can be made deductively valid. (Govier 1987: p. 27)

In response to this criticism Groarke claims that, "the problem with this aspect of Govier's critique is her expressively narrow account of what a fallacy is" (Groarke 1992: p. 116). Groarke says,

> In answer to [Govier's] account, it may be said that it makes more sense to construe 'reasoning' and 'fallacy' in a broader way that encompasses questions and problems about the status of the premises in an argument. The fallacy 'begging the question' arises, not because the conclusion of an argument cannot be inferred from the premises (on the contrary the argument is typically valid), but because the premises are objectionable. The fallacy 'equivocation' can be said to arise when an argument contains an implicit premise to the effect that two distinct uses of an expression are equivalent. A faulty *ad hominem* may depend upon the belief that a particular authority knows the truth of a particular claim. Even formal fallacies like 'affirming the consequent' and 'denying the antecedent' can be described as mistaken assumptions (and thus implicit premises) about what constitutes a valid form of inference. In general, different kinds of assumptions are associated with different kinds of fallacies and the deductivist can distinguish them accordingly. (Groarke 1992: p. 117)

This defense seems underdeveloped. While Groarke might be able to offer a deductivist account of fallacy, a detailed account of how a deductivist would identify traditional fallacies of inference is still needed. Certainly a deductivist would have little problem

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identifying an *ad hominem* fallacy where the attack on the person would take the form of a premise, but it is more difficult to see how the account could be extended to equivocation or the traditional formal fallacies without examples. I am not suggesting that this is in principle not possible. To the contrary, the deductivist does have options here. For instance, take the following example of affirming the consequent:

1. If it rained, then the streets will be wet.

2. The streets are wet.

3. Therefore, it rained.

The deductivist might say that this argument makes the underlying assumption that

1i. If the streets are wet, then it rained.

We could then be able to evaluate the acceptability of this premise. We might think, for instance, that wet streets are not good evidence for their having been rain because wet streets are often the result of the streets being washed, or of a lot of moisture being in the air, or of the neighbors watering their lawn. Adding the valid-making premise (1i) to the above argument allows us to expose the argument's weakness. Having added this premise we can see why the initial argument is fallacious when we assess the acceptability of the premises.

Groarke, however, needs to show how a reconstructive deductivist method can account for the entire spectrum of fallacies if he wants to answer Govier's objection by

claiming that deductivism is consistent with fallacy theory. While the example just

provided illustrates one suggestion for how reconstructive deductivism might explain the

formal fallacy 'affirming the consequent,' it is not clear that a similar strategy can be

used to account for 'equivocation,' or 'begging the question.' Perhaps deductivism can

provide a satisfactory analysis of these fallacies, although to show that it can do so

requires more detailed explanation.

Govier's last criticism of deductivism is that it requires an unreasonable

reconstructive strategy. In my view Groarke's answer to this criticism is less satisfactory

than his answer to the other two objections. He claims that this is not only a problem for

deductivism but for any theory of argument: "it must . . . be said that the recognition of

implicit premises in arguments is not required only of deductivism, and that any plausible

theory of argument must make room for implicit premises" (Groarke 1992: p. 117).

Groarke correctly points out the difficulty of coming up with a theory of how to account

for implicit premises. It often is the case that arguers base their arguments on implicit

assumptions. How do we identify what these implicit assumptions are? Do we evaluate

arguments with or without incorporating the implicit assumptions? These are questions

that a good theory of argument must address. So, Groarke is right to point out that any

theory of argument faces difficulties in addressing these problems. But, as I understand

Govier, she is making the point that a deductive reconstruction of many arguments can

often require the addition of premises to the argument that distort the original argument.

A deductivist theory of argument not only faces the challenge of identifying what the

missing premise(s) are but also of accurately representing what the transparently invalid

argument states. The point that Govier is making is that the deductivist will be forced to

add premises that might distort the meaning of the argument, not simply that it will have difficulties in identifying implicit premise(s). This is the point of Govier's analogy in which she compares the view a deductivist takes towards argument to looking at the world through purple lenses. She says,

> Reconstructive Deductivism allows and requires us to do too much to the data. If we look at the world through purple glasses, it will appear purple, but little is proven by such observations. Similarly, if we look at people's arguments through deductivist spectacles, all arguments will appear as complete, incomplete, or failed deductions. But little that is real is seen. (Govier 1987: p. 27)

The claim here is that treating all arguments as deductive arguments will distort some arguments. This is what, according to Govier, makes reconstructive deductivism a problematic policy for argument evaluation. Groarke's response that any theory of argument will face difficulties developing an adequate reconstructive policy does not address Govier's criticism that deductivism distorts some arguments.

There are a couple of things that need to be pointed out about Govier's criticism. First, it is explicitly directed against reconstructive deductivism. The criticism based on Stove's point that deductivism cannot account for a spectrum of rational support among invalid arguments more directly undercuts normative deductivism. However, if it is true that reconstructing arguments so that they are deductively valid distorts some of the arguments being evaluated, then that would be a criticism of reconstructive deductivism's

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feasibility as an evaluative strategy. However, Govier's criticism requires further elaboration. I develop this criticism in the next chapter, so I shall set it aside for the time being.

To sum up, we have seen that Govier's first criticism makes a good case against strong normative deductivism. The claim that there is no way for a strong normative deductivist to account for some invalid arguments being better than other invalid arguments is correct. If the strong normative deductivist claims that the only good arguments are deductively valid arguments, it would seem that they are committed to the view that all invalid arguments are equally bad. However, they are not so committed. Stove's flame example illustrates the point nicely; there are degrees of goodness amongst invalid arguments. In response, Groarke develops a reconstructive strategy that would show how any good argument is deductively valid and shows how this strategy can account for different degrees of conclusiveness amongst arguments. Groarke thinks that any good argument will have an implicit premise that makes the argument deductively valid. All that we are required to do is locate that implicit premise and assess its degree of acceptability. This does not lead to all deductively valid arguments supporting necessary conclusions. Rather, the conclusions' acceptability would come in varying degrees. Hence, a normative deductivist employing a reconstructive strategy can account for how arguments have degrees of strength and yet are still deductively valid.

It is not clear how effective the criticism about deductivism's ability to handle fallacies is. In principle it is not impossible for a reconstructive deductivist to have an account of fallacies consistent with deductivism. Potentially, both normative and

reconstructive deductivists might be able to offer such an account. However, an account still needs to be provided for exactly how deductivism analyses fallacies.

Finally, Groarke's response to Govier's third objection is not satisfactory, although neither is Govier's criticism. On Groarke's part we want to know why it is that evaluating a transparently invalid argument as a deductively valid argument is not evaluating a different argument; on Govier's behalf, we want more details about how reconstructive deductivism distorts some arguments.

The most effective criticism that Govier raises then is against strong normative deductivism, although Groarke's response does seem to suggest that reconstructive deductivism can address this criticism. A large part of the next chapter will examine the question of whether reconstructive deductivism does distort arguments in the process of evaluating them.

In appraising the debate between Govier and Groarke, Johnson says, in regards to Govier's criticism that "Govier's arguments may not be sufficient to dispense with deductivism entirely, but they seem sufficient to cast doubt on its validity" (Johnson 2000: p. 69). Johnson thinks that the best argument against deductivism stems from its inability to satisfy the adequacy conditions that any good theory of argument must satisfy. In the next section I will assess Johnson's argument against deductivism.

3.4 Johnson's Critique of Deductivism

Johnson claims that "the strongest argument against FDL-deductivism as a theory of argument emerges when [viewed] . . . through the perspective of the adequacy

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requirements" (Johnson 2000: p. 78). The adequacy requirements are the seven

requirements that Johnson thinks any good theory of argument must satisfy (Johnson

2000: pp. 52-56). Deductivism for Johnson is strongly affiliated with FDL.[1] In fact,

Johnson's argument from the adequacy conditions focuses on formal logic. But, even

while so focusing his argument, Johnson implies that in dispensing with FDL,

deductivism of the nonformal or NLD variety can also be dispensed with. I argue that the

problems which formal logic has meeting the adequacy conditions do not transfer to

natural language deductivism.

Johnson's argument against formal logic-deductivism is clearly laid out. He

argues that: (1) a good theory of argument must meet seven adequacy conditions; (2)

FDL-deductivism does not meet four of the adequacy conditions for a good theory of

argument; therefore, (3) FDL-deductivism is not a good theory of argument. For my

purposes it will be sufficient to narrow in on the four adequacy conditions that Johnson

thinks formal logic-deductivism does not meet. It will be seen that while formal logic

does not meet these adequacy conditions, Groarke's brand of deductivism is more

resistant. In fact, as Groarke indicates in a response to Johnson's criticism, mixing

Groarke's deductivism in with formal logic is to conflate it with something that it is not.

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[1] There are two things to note here. Groarke does not take deductivism and FDL to be strongly affiliated and thinks to do so is a mistake. The other thing I want to mention is that I cannot find a spot where Johnson in fact says that deductivism is equivalent to FDL so he may have something else in mind here. It might, therefore, not be fair for me to take this as his strongest argument against Groarke. Johnson does, however, strongly associate deductivism with FDL, almost as if it were a variation of FDL. He says, "the theory I call FDL is closely related to . . . deductivism" (Johnson 2000: p 59). Further, directly after his discussion of the problems with deductivism Johnson provides the final blow against FDL in a form of argumentation "that deductivists will appreciate" and says of this argumentation that it is, "the strongest argument against FDL-deductivism as a theory of argument" (Johnson 2000: p. 78). Hence, I will treat Johnson's argument contra FDL from the adequacy conditions to be Johnson's strongest argument against deductivism.

Having said this, it will, as I move forward, become apparent that Johnson's criticism that "deductivism cannot satisfy the all-important" (Johnson 2000: p. 77) fourth adequacy condition poses a serious problem for normative deductivism. This criticism, I think, resembles the Stove/Govier criticism. However, Groarke's version of reconstructive deductivism can address this problem. I will examine the third, fifth, and sixth adequacy conditions and show how NLD can, in principle, satisfy them. I will then return to the fourth condition and explore it in more depth.

The third adequacy condition is the first of the seven adequacy conditions for a good theory of argument that formal logic-deductivism fails to satisfy. Johnson's third adequacy condition states that "the theory of argument must contain a theory of appraisal that recognizes that there can be good arguments for a given position as well as against it" (Johnson 2000: p. 79). According to Johnson, formal logic-deductivism does not meet this condition since for formal logic-deductivism there cannot be a sound argument for $\sim p$ and also one for p. That is, there cannot be good arguments for two opposing positions, given the soundness criterion. An argument must have true premises and make a valid inference from these premises for it to be a good argument, for it to be sound. You can have valid arguments for two opposing positions, but only one can have true premises, as two opposing positions can't both be true. Therefore, according to formal logic-deductivism, only one of the arguments is good.

Formal logic is susceptible to this problem, but Groarke thinks that this problem is not faced by NLD. Groarke provides an example of two deductive arguments that are good but take opposing positions on an issue. Consider a trial where there are two

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reliable witnesses to a crime, each of whom thinks he saw a different person commit the crime.

    1. Paula says that she saw Y commit the crime.

    2. Her testimony is reliable.

    3. So, Y probably committed the crime. (Groarke 2002: p. 282)

And,

    1. Louis says that X committed the crime.

    2. His testimony is reliable.

    3. So, X probably committed the crime. (Groarke 2002: p. 282)

Both of these arguments, while taking opposing positions on the assumption that only one person committed the crime, are "plausible, for both are valid and have premises that are acceptable" (Groarke 2002: p. 282). These arguments can also be turned into deductive arguments by adding a missing premise that *a person who is reliable is usually correct.* Groarke suggests that deductivism need not, as we saw, have truth as a requirement. What is needed for an argument to be good is that its conclusion be *entailed* by its premises and that the premises have virtues that make them acceptable, such as being highly probable or plausible premises. It is not required of an argument that the premises be true for us to assert that the argument is good. The point to get from these examples is that it is plausible that X or Y could have committed the crime and that we can support each with good deductive arguments.

FDL requires truth for an argument to be sound. But arguments in everyday conversation are often based on claims whose truth is not known (that is, it is uncertain if they are true or false), and the arguments are still good. Groarke's variation of reconstructive deductivism weakens the requirement of truth for good arguments and, thus, allows good arguments to have premises that are acceptable without their having a known truth status. Deductivism permits that there are two good arguments that take opposing stands on an issue so long as both arguments have acceptable premises. In other words, arguments can have acceptable premises which are not true, or have an unknown truth status, and we can still say that the arguments in which such acceptable premises are found are good. NLD is, therefore, not forced to say that there are never good arguments for two sides of an issue. NLD can, thus, meet Johnson's third adequacy condition since it can account for there being "good arguments for or against a given issue" by changing the truth requirement to admit arguments with acceptable premises which have an unknown truth status (Johnson 2000: p. 79).

Johnson's criticism that sound arguments cannot be offered for and against a position does force the deductivist to make a choice. Either deductivism is false or truth is not a requirement for argument goodness. Groarke does not want to give up on deductivism, so he takes the requirement for good arguments to be acceptability instead of truth. Lowering the standard to acceptability does not mean that truth has no role in a deductivist theory of argument. Deductivism needs truth for the very definition of argument, since a deductive argument is defined as an argument where the truth of its premises is inconsistent with the falsity of its conclusion. But the fact that the definition

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of deductive argument relies on the notion of truth does not imply that deductivism insists that all arguments have true premises.

Certainly, a deductivist would think that there is only one argument with true premises when two arguments lead to inconsistent conclusions. It does not make sense that both 'p' and '$\sim p$' are true even if there are good arguments supporting both of those claims. The deductivist would, in such situations, have to say that one of the arguments has a true conclusion, while the other does not. However, just because the deductivist needs to admit that only one of the conclusions can be true does not mean the deductivist must insist that 'p' and '$\sim p$' cannot have good deductive arguments based on acceptable premises defending them. It is entirely possible that there are two deductive arguments with opposing conclusions whose premises are acceptable yet inconclusive in terms of their truth status. When this is the case we usually look for further arguments to settle which view is correct. We know that both arguments cannot have true premises so we seek better arguments, or we seek to illustrate that the argument for the alternative conclusion does not have true premises.

Recall, for instance, Groarke's legal example. We have two deductive arguments supporting different conclusions. One conclusion says that X *probably* committed the crime and one says that Y *probably* committed the crime. Both conclusions are based on the respective testimonies of reliable witnesses. Both conclusions, however, cannot be true. This example points out that we need to question which conclusion is in fact the correct one. Any enquiry can bring out arguments that support different conclusions. Johnson thinks that deductivism cannot account for this fact because it relies too strongly on truth as a requirement for evaluation of argument goodness. Groarke shows, however,

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how deductivism can address this issue by making acceptability a requirement for argument goodness. But, we can have two contradictory conclusions that are both acceptable and based on arguments with acceptable premises. What such contradictory results ought to indicate is that further investigation is required to determine which conclusion is more acceptable. Consider the following examples:

1. Burning fossil fuels increases global warming.

2. Global warming threatens the future of life on planet earth.

3. We should not endanger life.

4. Therefore, we should not burn fossil fuels.

And,

1. Burning fossil fuels creates jobs.

2. Creating jobs gives people a livelihood.

3. We ought to help people have a livelihood.

4. Therefore, we ought to burn fossil fuels.

These arguments move from acceptable premises to acceptable conclusions. However, the conclusions imply opposing courses of action. We cannot take both courses at the same time. We should, therefore, seek to determine which course of action is better. One way of doing this would be to determine which is more important, human life or employment. Consider the following argument:

1. Burning fossil fuels causes global warming.

2. Global warming threatens the future of human life on planet earth.

3. Human life trumps employment.

4. Burning fossil fuels creates jobs.

5. Creating jobs gives people a livelihood.

6. Creating livelihoods for people is something we ought to do.

7. Therefore, we shouldn't burn fossil fuels.

In this argument we have added premise (3) and combined some of the premises from the other two arguments. One could advance an argument such as this to show how the premises of the first two arguments can be acceptable when, given additional considerations—such as those raised in (3)—only one of the conclusions is correct. The above argument's premises are consistent with each other and they are acceptable premises. While the premises, 'burning fossil fuels creates jobs,' 'creating jobs gives people a livelihood,' and 'creating livelihoods is something we ought to do' are acceptable, they do not support the conclusion that 'we ought to burn fossil fuels'—as they do in the second argument—because we have added the premise that 'human life trumps employment'. This added premise, together with the premises that 'global warming threatens the future of human life on planet earth' and 'burning fossil fuels causes global warming' entail the conclusion, even if premises 4-6 are acceptable.

It is possible that even this argument's conclusion is not true. It would have to respond to other good arguments that challenged its acceptability or provided good reasons supporting rival conclusions. The point to take from this discussion is that in giving up truth as a standard for premise adequacy, deductivism does not jeopardize the

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ability to settle arguments that support opposing positions. In fact, it can provide a framework in which we can advance dialectical enquiry.

In principle even normative deductivism can address the problem that Johnson raises for formal logic-deductivism with the third adequacy condition. Normative deductivism need not be committed to truth as a requirement of argument goodness. Acceptability would do just fine. Arguments with acceptable premises and a deductively valid inference would then be good arguments. For the normative deductivist there could then be good arguments for opposing standpoints with acceptable premises which have an unknown truth status.

Johnson's criticism is a compelling criticism against the view which it is most ostensively directed towards, the view that formal logic is a good theory for evaluating everyday arguments. Here formal logic proposes soundness standards that equate a good argument with a sound argument; that is, with arguments that have true premises and a valid inference. On this model there cannot be good arguments for and against a position because both could not have true premises, so one of the arguments would have to be bad. However, the problems with formal logic do not transfer to Groarke's deductivism because Groarke broadens the adequacy requirement on premises from truth to acceptability.

Johnson's fifth adequacy condition states that "the standards for appraisal of argument should be such that . . . the ordinary reasoner can decide whether or not these are satisfied in a given instance. In short, the criteria should be user-friendly" (Johnson 2000: p. 80). Formal logic is taken to be non-user-friendly because of the technical sense

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of validity upon which it depends. Johnson thinks this standard is difficult to make

"readily available to the ordinary reasoner" (Johnson 2000: p. 80).

Here again the strongest case is against formal logic and not deductivism. Formal logic is a complicated theoretical system that only very few arguers would ever conceivably be able to use for evaluating arguments. The formal logician who advocates the use of formal logic for argument evaluation may offer the following rejoinder to this criticism. They could claim that simply because many good arguers do not understand the process underlying the arguments they advance does not imply that the arguments they make are not in accordance with the norms of formal logic. However, I suspect that even good arguers—while their arguments might be in accordance with some of the norms of formal logic—would be pressed to translate a bit of language offered as an argument into predicate or modal logic and determine whether the argument's conclusion necessarily follows from its premises. This illustrates to my mind that understanding the procedures and methods of formal logic does not give us a set of conceptual tools that are user-friendly.

It is a little easier to see how NLD would provide the ordinary reasoner with some basic conceptual tools that could aid in the process of evaluating arguments encountered on a day-to-day basis. Johnson says:

> There is a problem with validity, understood in the technical sense: The
>
> conclusion follows necessarily from the premises. There have been
>
> various attempts to make this standard readily available to the ordinary

reasoner: for example, truth trees, possible world scenarios, and so forth. I

am not convinced that any of them succeed. (Johnson 2000: p. 80)

I am, at least, not convinced that validity faces such a problem. Perhaps it is difficult to

grasp all the semantic implications of a valid argument, so techniques like truth-trees or

truth-tables were devised to help understand the effect validity has on the semantics of

formal arguments. However, I take it that the everyday reasoner is quite able to

recognize most cases of validity so long as they know what the word 'validity' means.

However, even if they did not know what the word meant, my intuition is that they would

be able to pick out many valid arguments from invalid ones. Take the following

argument:

1. Jones is a politician.

2. So Jones must be crooked.

I think the average reasoner would recognize that this argument relies on the missing

premise that *all politicians are crooked*. The average reasoner would probably think that

the conclusion need not follow from the premise without the addition of such an implicit

premise. For after all: why would we think Jones is crooked because he is a politician

unless all politicians are crooked?

Moreover, adopting a reconstructive deductivist strategy, making explicit an

implicit premise, and then evaluating the premise for acceptability seems to facilitate the

process of argument evaluation in a manner that is accessible to the ordinary reasoner. It

provides the ordinary reasoner with some basic tools that they could use to assess whether an argument is good or not. First, check the argument for validity and assess its given premises; second, if the argument is not valid, add another premise that makes it valid and assess that premise for its degree of acceptability. If the added premise is acceptable, then the argument is good. This procedure seems to be a useful technique that anybody could learn in a couple of lessons and improve with further application in real-world scenarios.

In the end, however, this is an issue that ought to be settled through empirical study. If psychological research done on arguers suggests that the conceptual tools and evaluative criteria of deductivism cannot be adequately used and identified by the ordinary reasoner, then that would show that Johnson's intuition that deductivism is not "user-friendly" is correct. If the research showed that it was "user-friendly" then my intuitions would be confirmed. There can be no definitive case made for or against Johnson's claim that deductivism cannot meet adequacy condition five without further research. Therefore, while Johnson illustrates that formal logic has difficulties as a method which the ordinary reasoner can readily employ to evaluate everyday arguments, deductivism—at least it is reasonable to think—does not have the same problem.

Adequacy condition 6 says that a theory of argument "must be such as to allow for fruitful criticism." Formal logic falls short since it is, according to Johnson, "limited" to the sound-unsound assessment of arguments (Johnson 2000: p. 80). As we have see this is not true of Groarke's deductivism. Groarke's deductivism is consistent with a plurality of tactics and methods for evaluating and criticizing premises within a deductive framework. He presents a conception of deductivism which

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Recognizes that argument evaluation extends beyond assessment of validity, for a good deductive argument must begin with an accepted starting point and this means that its expressed and unexpressed premises must be acceptable. In the course of evaluating deductive arguments deductivism requires that we consider the acceptability of a proposed definition, an empirical claim, an eyewitness report, a principle of logic, a moral maxim and so on. (Groarke 1999: p. 9)

Thus, Groarke thinks of deductivism as allowing for a variety of normative strategies for assessing premise acceptability. The theory of acceptability that a deductivist might adopt could allow for different normative standards for the evaluation of empirical claims and moral claims; it might, as we saw earlier, also have techniques for evaluating fallacies and or definitions. The point is that deductivism is not limited to the sound-unsound criteria for evaluation, but can have a plurality of helpful criteria for the evaluation of arguments.

Again, Johnson's criticisms of formal logic do not transfer to problems with Groarke's deductivism. While formal logic is limited to the sound-unsound distinction as a criterion of evaluation, Groarke's brand of reconstructive deductivism is not limited in the same way. Groarke's deductivism is consistent with a plurality of normative techniques directed at the assessment of premise acceptability.

We now come to the crucial adequacy condition four. This adequacy condition states that a good theory of argument "must contain a theory of appraisal such that

arguments exist on a continuum from weak to strong" (Johnson 2000: p. 79). Johnson says,

> Because validity is an all-or-nothing requirement and is necessary for soundness, in the end, arguments will be evaluated as either sound or not sound. There are, for FDL, no degrees of soundness; hence no degrees of logical virtue are possible. (Johnson 2000: p. 79)

But Groarke thinks that his version of deductivism is able to evade this criticism. Groarke's version of reconstructive deductivism can convert degrees of logical virtue into degrees of premise acceptability. For any invalid argument we can evaluate its logical strength by adding a valid-making premise and assessing its acceptability. The different degrees of acceptability that the premise could have would correspond to different degrees of logical virtue present in the initial invalid argument. One example that is used by Groarke, Johnson, and Govier is the following:

> Roses are red, violets are blue; therefore, Ed loves Sue.

This argument provides very weak reasons to endorse its conclusion. It seems, in fact, to be a plainly bad argument because the premises are irrelevant to the conclusion. Johnson thinks that we can identify this absurdity immediately and do not need deductivism to point it out to us. Deductivism, however, Groarke claims, simply evaluates this argument by adding a valid-making premise:

If Roses are red and violets are blue, then Ed Loves Sue

The acceptability of this premise would be highly questionable. The color of roses and violets has nothing to do with whether Ed loves Sue. Reconstructive deductivism seems to be able to illustrate different degrees of logical support by adding a valid-making premise and assessing them for acceptability. In fact, if someone were to seriously advance an argument like the one above, the deductivist strategy seems to be exactly the procedure by which one would expose the inadequacy of the argument being advanced. Johnson acknowledges that "depending on how one unpacks [deductivism] there may be some flex in the truth requirement, although it is not typically understood that way" (Johnson 2000: p. 79). But consider the following argument:

1. The earth's temperature rose by 1 C in the last ten years.
2. Therefore, there is strong evidence for global warming.

We could add to this argument the premise

1i. If the earth's temperature rose by 1 C in the last ten years then there is strong evidence for global warming.

We might then ask questions about how good this evidence is. Does it provide evidence for global warming? Is it a natural fluctuation in the earth's temperature? Is it sufficient

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proof for the existence of global warming? And so on. These sorts of questions would go into determining how good the argument is. It seems entirely plausible that there are several degrees of acceptability that a premise can exhibit that would correspond to the logical strength of an argument. For instance, the cogency of the roses and violets argument is much lower than the acceptability of the global warming argument. Moreover, we can assess the different degrees of acceptability of each respective argument with the toolbox of reconstructive deductivism; by adding a valid-making premise and assessing its acceptability.

I take Johnson's criticism here to have affinities with the Stove/Govier criticism a full evaluation of which I set aside earlier in this chapter. I want to pick this line up again and provide a more complete discussion of it. Stove's basic point was that deductivism leads to one type of premise-conclusion link—deductive validity. According to Stove there are no degrees of goodness for the deductivist amongst invalid arguments. All invalid arguments are equally bad. In the 1992 article Groarke claims that "soundness is the key to good argument. A sound argument is deductively valid and has premises that are true or at least *acceptable*. An argument is deductively valid if it is impossible for its premises to be true and its conclusion false" (Groarke 1992: p. 111 italics added). Every good argument that is transparently invalid will have an implicit valid-making premise. Probabilistic and plausible arguments that are good would all have implicit premises that would, together with the given premises, entail the conclusion. Therefore, Johnson and Stove/Govier are correct to point out that there is only one logical consequence relation between premises and conclusions according to such a version of deductivism. Consider the following arguments:

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1. Bill Clinton was a very good President.

2. Therefore, Hilary Clinton will probably be a very good president.

and

1. Socrates is a man.

2. Therefore, Socrates is mortal.

In the first argument Groarke might say that there is the implicit assumption that *Hilary Clinton will probably be as good a President as Bill Clinton* and for the later argument we add the premise *All men are mortal*. In both of these arguments, according to Groarke, the premise-conclusion link is deductively valid. The inference to the conclusion in the second argument is just as necessary as the inference in the first.

This result, however, seems strange. We can evaluate the inference by assessing the added premise, but it certainly does not seem that the inference in the first argument is of the same strength as the inference in the second. Indeed, the inference in the second is necessary: Socrates cannot be a man if he is not mortal. However, Hilary Clinton's probably being a good president may be false even if it is true that 'Bill Clinton was a good president,' although perhaps this claim gives some reason to think that she will be a good President. It seems as if the inference in the second argument is necessary when the inference in the first is not. Groarke's reconstructive deductivism does not capture this difference of inferential character between these two arguments. It treats both of them as having identical inferences. I will have more to say on this in the next chapter.

Even in the 1999 and 2002 articles, it is not clear to me whether Groarke would treat the above inferences as logically identical or not. It seems, however, at least in these articles that he need not treat them as identical. On the pragmatic justification for reconstructive deductivism, Groarke does not need to claim that the only good arguments are deductively valid. There might be a spectrum of logical strength among different invalid premise-conclusion connections and we can evaluate these different connections through deductive reconstruction. Taking this approach would provide a response to the Stove/Govier criticism and the criticism from Johnson's fourth adequacy condition. But it seems to my mind that Groarke would then have to abandon the view that all good arguments are deductively valid and admit that some invalid arguments can be better than some other invalid arguments. Hence, he would have to abandon strong normative deductivism—the view that "all good arguments are deductively valid" (Groarke 1992: p. 111)—even as a justification for reconstructive deductivism. Strong normative deductivism would not permit that there are different degrees of strength among invalid arguments, which there do seem to be, as Johnson, Govier, and Stove have pointed out.

This criticism of Johnson, Govier and Stove seems to be strong criticism against Groarke's early versions of reconstructive deductivism, although it is not one to which Groarke has no response, and it is not the final word on deductivism. In the next chapter I will develop some of my own criticisms of deductivism by challenging the different justificatory strategies that can be used to support deductivism.

We can, therefore, conclude that reconstructive deductivism can, in theory, accommodate Johnson's criticism from the fourth adequacy condition, although it does

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raise some serious questions about strong normative deductivism and the normative justification for reconstructive deductivism.

3.5 Conclusion

In this chapter I examined some of the criticisms of deductivism which have been raised in the informal logic literature. In particular I looked at Govier's and Johnson's criticisms. Govier's criticisms were threefold: (1) deductivism places "too much emphasis on deductive validity, failing to allow for different degrees of logical support" (2) deductivism "eliminates all talk of fallacies," and (3) deductivism "leaves us with the insurmountable task of providing a plausible policy for reconstructing arguments which are on the face of it, deductively invalid" (Groarke 1992: p. 114-115). We saw that deductivism can in principle address (2) although this requires further development. Also we saw that (3) is directed at reconstructive deductivism and could pose some serious challenges for it, although Govier's lens analogy and the claim that reconstructing arguments as deductively valid can distort them requires further elaboration. I plan to further explore this point in the next chapter. We also saw that criticism (1) and Johnson's charge that deductivism cannot meet the fourth adequacy condition poses some serious challenges for strong normative deductivism and that, in so far as Groarke's reconstructive deductivism depends upon a strong normative thesis, it would be undercut by this criticism. Although, Groarke's view, as we saw, need not rely on strong normative deductivism, so a reconstructive deductivist has ways of responding to this criticism. Johnson makes a strong case that FDL cannot satisfy adequacy conditions

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three, four, and six, but a fully developed version of reconstructive deductivism could, in principle, respond to these charges.

Therefore, while Govier and Johnson have raised some challenges for a deductivist theory of inferential adequacy, these challenges can, in principle, be met by reconstructive deductivism. In the next chapter I am going to expand on some of these criticisms and raise some of my own to show why I think there is good reason to be skeptical about the prospects of a normative deductivist or a reconstructive deductivist theory of inferential adequacy.

CHAPTER IV

DEDUCTIVISM: PROBLEMS AND POSSIBILITIES

4.1 Overview

In Chapter II, I examined Groarke's reconstructive deductivism and argued that

Groarke employs psychological, normative, and pragmatic justificatory strategies for his

brand of reconstructive deductivism. In the last chapter I examined the debate on

deductivism in the informal logic literature. I considered Govier's and Johnson's

criticisms of deductivism. In this section I am going to develop my own criticisms of

reconstructive deductivism and strong normative deductivism. I will also evaluate the

possibilities for weak normative deductivism. In addition I point out how the criticisms

raised in this section apply to Groarke's arguments for reconstructive deductivism. It will

turn out that while I do not have any knock down arguments against reconstructive

deductivism, there are good reasons to be skeptical about its prospects as a theory of

inferential adequacy. I develop my criticisms through sequentially evaluating the four

justificatory strategies discussed in chapter one.

4.2 Introduction

I want to begin by recognizing what I consider the healthy philosophical instinct

that motivates deductivism. The aim to come up with one unifying method of evaluation

that can be easily applied to all arguments appears to me a sensible aim. In fact, in many

ways, it seems to me that deductivism is a natural and reasonable starting point for the

project of articulating a theory of inferential adequacy. It would be an ideal situation for argument evaluation if there were one simple heuristic that could be applied to all arguments in order to determine if they are good or not. Reconstructive deductivism is a natural candidate for such a theory of inference adequacy. However, as the history of intellectual investigation and discovery testifies, the most natural candidates for a successful theoretical account of some phenomena must often be abandoned in the face of defeating evidence. I will make the case that both reconstructive and strong normative deductivism cannot adequately account for the relevant evidence for which a theory of inferential adequacy needs to account. For each justificatory strategy for reconstructive and for strong normative deductivism, there are reasons that should lead us to doubt whether these justifications actually do the work of justifying deductivism. It must be noted that the arguments that are developed here will not refute deductivism. After all, the deductivist may come up with additional methods for justifying deductivism. However, they will pose some challenges that, in my mind, place the burden of proof on deductivism.

I will make my case by developing criticisms about each justificatory strategy. The criticism will draw attention to facts about arguers and arguments that are difficult for a reconstructive or a strong normative deductivist to account for on their view. I begin with the ontological and psychological justification and show that these justifications run into difficulties because arguers often explicitly disavow any commitment to or belief that their conclusion is entailed by their premises. Also I develop a criticism of what I take to be a variation of the psychological justification used by Groarke. Next, I move on to the normative justification for reconstructive

deductivism and show some of the problems it faces. I then move to the pragmatic justificatory strategy—which seems to offer the most plausible defense of reconstructive deductivism—and show that it runs into problems capturing defeasible inferences. Defeasible arguments appear to satisfy all the conditions of Groarke's deductivist strategy, although they are not deductively valid because their conclusions can be unacceptable/false when all of their premises are acceptable/true. Moreover, evaluating defeasible arguments as deductively valid distorts the nature of these arguments because it treats them as "certainty preserving" (Groarke 1999: p. 3) when they are not. Defeasible arguments, therefore, need to be evaluated not through reconstructing them as deductively valid, but according to some other evaluative strategy. This consequence would suggest that there is a necessity to introduce non-deductive evaluative strategies into a theory of inferential adequacy. Because such a necessity exists for the use of non-deductive evaluative strategies, the pragmatic efficacy of reconstructive deductivism is called into question. Finally, I will show why I think strong normative deductivism is implausible and then I will go on to assess the merits and drawbacks of weak normative deductivism.

4.3 The Psychological and Ontological Justification

The psychological justification invokes psychological states like beliefs and/or intentions to justify reconstructive and strong normative deductivism. The (weak) psychological justification for reconstructive deductivism claims that because arguers have beliefs and intentions that indicate that their arguments are attempts at valid arguments, they should be reconstructed as deductively valid. To fail to so reconstruct

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arguments would be uncharitable to the arguer. The psychological justification for normative deductivism claims that an invalid argument is a failure since it does not include all the relevant beliefs which would make it deductively valid and it is, therefore, dismissed. The strong normative deductivist claims that all good arguments are deductively valid. A strong normative deductivist, as we saw in chapter I, could use psychological considerations in an effort to justify strong normative deductivism. The strong normative deductivist using the psychological justification is committed to the view that all arguers have beliefs and intentions that indicate that their arguments are deductively valid. Unlike the reconstructive deductivist using the psychological justification, however, the psychological normative deductivist claims that we ought not to reconstruct the argument but simply dismiss it as a bad argument until the arguer has included his valid-making beliefs as premises.

The strong normative deductivist could claim that we have no idea what beliefs the arguer has that would make their argument deductively valid, so instead of arbitrarily attributing beliefs to an arguer, we ought to recognize that arguers have an obligation to include in their arguments all their valid- making beliefs. When arguers have failed in this obligation we can consider their arguments bad. Even given that there is a deductively valid version of the argument in mind, the strong normative deductivist recognizes that we are at a loss to determine what beliefs the arguer had in mind that would make the argument deductively valid. As a result, the strong normative deductivist would dismiss the argument as failing in its obligation to include all the relevant beliefs and consider the argument a bad one until the arguer has supplied all their valid-making beliefs.

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One way to understand strong normative deductivism is as a policy. The strong normative deductivist has a policy to dismiss all invalid arguments as bad. Invoking the psychological view that all arguments attempt to attain the deductive standard of evidence might provide a reason for this policy. If the psychological view were true, then one could, instead of adopting a reconstructive strategy, adopt a strong normative policy where attempts at valid arguments are treated as bad arguments because they did not achieve their goal. At first glance there is no problem here with the strong normative position. People often invoke empirical claims as reasons for endorsing a normative policy. Consider a politician who decides that the American health care system ought to become more like Canada's because of certain empirically observable deficits in the quality of care that can be offered within the American system. The empirical evidence becomes a reason for them to adopt a normative policy towards the health care system in the United States. Similarly, the empirical claim that arguers aim for deductively validity could, perhaps, give someone a reason to think that arguments which are not deductively valid ought not to be considered good arguments.

The ontological justification for reconstructive and strong normative deductivism claims that all arguments are deductively valid in virtue of their ontological characteristics. One version of this view would be Platonic ontological deductivism. Like the psychological justification, the ontological justification can be used to justify both reconstructive and strong normative deductivism. For reconstructive deductivism the ontological justification claims that texts which do not entail their conclusions but are presented in discourse as arguments should be reconstructed to express a deductively valid argument. The ontological justification for normative deductivism would claim that

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texts which are not deductively valid fail to denote any argument. The normative deductivist might say that there are several possible arguments that the text could be reconstructed to express and it is the obligation of the arguer to choose one, but until they have done that the text presented is not an argument.

The most straightforward problem that the psychological and ontological justifications face is that much discourse and text that we, as well as the arguers advancing them, would call arguments are not deductively valid. In fact many invalid arguments are consciously advanced by arguers as deductively invalid arguments. Many of these arguments seem cogent in spite of their being invalid. In English, at least, the linguistic consensus is that an argument is a spoken or written text where one segment of that text is supported by reasons which make up the rest of the text. The Oxford English Dictionary defines the sense of argument that is relevant in logic in the following way: "a set of reasons given in support of something" (OED 2005: p. 41). Recall Copi's definition of argument discussed in Chapter I. Copi says, "an argument . . . is any group of propositions of which one is claimed to follow from the others, which are regarded as providing support or grounds for the truth of that one" (Copi 1978: p. 7). This understanding of the term 'argument' seems to be the standard way that the word is used (unless it is used to refer to a quarrel). The deductivist who adopts a psychological or ontological justification for their deductivism presses for a much narrower definition of 'argument' than the standard definition. For such deductivists all arguments are deductively valid. Therefore, according to them, inductive or abductive arguments used in science are, in fact, deductively valid. These arguments are valid because of the ontological or psychological characteristics which the ontological or psychological

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deductivist would think that arguments have. Moreover, every political argument that has ever been made and will ever be made, every practical argument about what to do that you or anyone else has considered, is a deductively valid argument. Indeed, every argument made would have been deductively valid.

This universal claim to deductive validity made by the deductivist using a psychological or ontological approach seems highly implausible. It seems at least as if there are many claims-reason complexes that are not deductively valid. The ontological and psychological justifications have to explain away the apparently straightforward fact that many arguments appear not to be deductively valid. And, perhaps more importantly, they also have to account for why people who make transparently non-deductive arguments are not aware of having any beliefs or intentions that suggest their argument is deductively valid. There are many scientific arguments where those who advance them are very careful to state that their conclusion does not deductively follow from their premises. A deductivist using the psychological or ontological justification needs to provide an account of how such scientists, as well as others who disavow that their conclusion must follow deductively, are mistaken about the nature of their arguments.

This is not a conclusive case against deductivism. But these considerations do show that the deductivists using a psychological or ontological justification must claim that such intentionally non-deductive arguments are really deductively valid. Arguers who explicitly disavow the entailment of their conclusion are mistaken according to such deductivists. Such arguers are either not making arguments, or they are making arguments that are implicitly deductively valid or serve to denote a (valid) argument.

The reconstructive or normative deductivist who uses an ontological or psychological justificatory strategy must come up with some sort of explanation for why cases of arguments where the arguer explicitly disavows entailment are, in fact, cases of entailment. Such an explanation is not *a priori* impossible. Several options are open to the ontological or psychological deductivist. Someone invoking the ontological justification for reconstructive or normative deductivism would have to make a case for the ontological deductivist theory that arguments are real, in the Platonic sense, and deductively valid. I am not aware of any such case having been made, so the burden of proof lies with the ontological deductivist to make the case for their view. A reconstructive deductivist using the psychological justification might invoke empirical facts about cognition to illustrate that all arguments aim for deductive validity, even those arguments where the arguer explicitly disavows that their conclusion is meant to be entailed by their premises. The psychological view would claim that these empirical facts give us evidence to reconstruct invalid arguments so that they are deductively valid.

In giving a general overview of the different views in psychology and philosophy about the extent to which deductive reasoning plays a role in cognition, Johnson-Laird and Byrne explain one of these views as following:

. . . logical error is impossible: deduction depends on a set of universal principles applying to any content, and everyone exercises these principles infallibly. . . . What seems to be an invalid inference is nothing more than a valid inference from other premises. In recent years . . . [there have been psychologists that have defended] a similar view. Mistakes in reasoning

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[they claim] occur because people forget the premises, re-interpret them,

or import extraneous material. [Some philosophers have] concurred, there

is some malfunction of an information-processing mechanism. (Johnson-

Laird and Byrne 1991: p. 18)

Reconstructive or normative deductivists could invoke psychological theories such as

those discussed in the above passage as justification for their respective versions of

deductivism. However, the evidence for such views is not conclusive (Johnson-Laird and

Byrne 1991: p. 18- 22) and there are disagreements among psychologists and

philosophers about the extent to which human reasoning is deductive. Because these

views "seem so contrary to common sense" (Johnson-Laird and Byrne 1991: P. 18), and

because they would require a re-working of the standard conception of 'argument' so that

'argument' would become equated with 'deductively valid argument', the burden of

proof is squarely on the psychological deductivist who would advance these views to

produce compelling evidence that they are correct. Until such evidence has been

provided we may remain skeptical about the prospects that such evidence will provide a

psychological justification for deductivism.

However, empirical proof is not the only option open for a psychological

justification of deductivism. As we saw in the previous chapter, Groarke makes an

argument for reconstructive deductivism which I think can be interpreted as a type of

psychological justification. It justifies reconstructive deductivism though a conceptual

analysis of the beliefs involved in every argument. More importantly, however,

Groarke's psychological justification for reconstructive deductivism is consistent with arguers not understanding their arguments to be deductively valid.

To briefly review, I think Groarke's "psychological" justification is captured in the following quotation:

> 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 directly 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. ... In this sense, their argument declares that they
> **believe** that these premises imply the conclusion, and that the conclusion
> is true if the premises are true. It is perhaps worth noting that they are
> committed to the latter conditional not merely in the sense of material
> implication, but in the stronger sense that they must **believe** that there is
> a relationship between their premises and conclusion which makes it
> reasonable to base a belief in the latter on a belief in the former.
> (Groarke 1999: pp. 6-7; bold added)[2]

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[2] Groarke thinks this view is consistent with and supported by the views expressed by van Eemeren and Grootendorst, 1992 pp. 30-31.

This quotation can be interpreted as a psychological justification because it attributes beliefs to arguers based on a conceptual analysis of the speech act 'argument' and 'assertion'. While this can also be considered a conceptual justification for reconstructive deductivism, I think we can nevertheless include it as version of the psychological justification for reconstructive deductivism. It would be awkward to introduce a new justificatory strategy for deductivism called the conceptual justificatory strategy because conceptual justifications could make ontological or normative claims in addition to psychological ones. This quotation is a instance of the psychological method of justification for reconstructive deductivism because it is a conceptual analysis of speech acts 'argument' and 'assertion' which leads us to attribute beliefs (a type of mental state) to arguers. The beliefs we attribute to arguers based on this conceptual analysis give us a reason to reconstruct their arguments so that they are deductively valid. Contrary to the empirically based psychological justification for reconstructive deductivism—which uses scientific evidence based on experimentation (*a posteriori* evidence)—Groarke is doing a conceptual analysis of the concept 'argument' which makes psychological claims to justify reconstructive deductivism. Both versions of the psychological justification make claims about an arguer's mental states and, therefore, are in a broad sense. These mental states are understood as justifying an interpretation of the argument such that it is deductively valid. However, they take different approaches to establishing these claims. One takes the approach of accumulating evidence through doing science; the other performs a conceptual analysis.

It is important to properly understand Groarke's claim here. Groarke is not claiming that arguers intend to make deductively valid arguments, but that they can be

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understood as making deductively valid arguments. He argues that they can be so understood in part because of the beliefs to which an arguer is committed: beliefs that we know every arguer must have in virtue of their advancing an argument. An arguer is then, committed to a belief in the argument's associated-conditional. If an arguer had no commitment to a belief in the truth of the associated-conditional, then she could not be understood as justifying the conclusion of their argument. This commitment to a belief in the associated-conditional, which every arguer must have as a condition of them making an argument justifies an interpreter of an argument to reconstruct it so that it is deductively valid.

Groarke makes it clear that his version of deductivism is not based on an analysis of the particular conception of logical implication that arguers have. An arguer might intend her argument to support their conclusion in a variety of ways. Groarke is advancing the view that all arguers can be understood to be making deductively valid arguments and that their arguments may be evaluated as such. Groarke claims that, "Ordinary reasoners do not distinguish the kinds of argument and persuasion which argumentation theory proposes as fundamentally different kinds of argument" (Groarke year 1999: p. 36). Deductivism, thus, is understood by Groarke as view about how arguments are to be best understood, not about the actual reasoning patterns of arguers. One of the methods by which he justifies understanding arguments as deductively valid is through the conceptual analysis of 'argument' and 'assertion' which commits every arguer to the belief in the truth of their arguments associated conditionals.

In the quotation from page 89, Groarke makes the claim that every argument is justifiably interpreted as a deductively valid argument, in part, because of the beliefs that

arguers have about the relationship that holds between their argument's premises and its conclusion. Every argument has a *rational structure* such that its premises *support* its conclusion by functioning as reasons for the conclusions endorsement. In the above quotation, I take Groarke to be claiming that any rational structure can be articulated by a deductively valid argument *because* every arguer must believe that their premises provide reasons to endorse the conclusion; that is, every arguer believes, 'if the premises of my argument are true, the conclusion is true.' Based on this belief, Groarke thinks that all arguments can be reconstructed as deductively valid.

This analysis gives Groarke a response to the problem that we saw psychological justifications for reconstructive deductivism run into. The problem was that many arguers explicitly disavow that their premises entail their conclusion. But on this justification that Groarke uses for reconstructive deductivism, arguers who do not have any special intention to make their argument deductively valid can be understood as implicitly making deductively valid arguments because of the arguer's implicit belief in the truth of their argument's associated conditional.

The argument, Groarke would say, can be captured by a deductively valid reconstruction because it has a rational structure. Any claim-reasons complex can be captured in a deductively valid reconstruction by making a conditional statement where the reasons are the antecedent and the conclusion is the consequent of the conditional. Because every argument has such a structure, and because every arguer sincerely advancing an argument must believe that 'if the premises of my argument are true, then my conclusion is true,' a deductively valid understanding of an arguer's arguments is always possible. So, while the arguer may go to all sorts of lengths to disavow

entailment, it still seems that there is an interpretation of their argument that makes it out to be an entailment and is also consistent with what the arguer believes.

The problem that I find in Groarke's claim is that attributing assumptions that make arguments deductively valid *need* not follow—even though it can—from the requirement that an arguer must "believe that there is a relationship between their premises and conclusion which makes it reasonable to base a belief in the latter on a belief in the former" (Groarke 1999: p. 7). All that follows is that assumptions are attributed to the argument that makes it reasonable to endorse the argument's conclusion on the grounds of its premises. Thus, arguers—instead of being understood as having an implicit commitment to their argument's associated-conditional—are more accurately understood as holding the commitment that 'my conclusion follows from my premises' where the term 'follows' is broadly construed and need not be limited to entailment. From the requirement that an arguer believes their premises give reasons that justify the endorsement of their argument's conclusion, all that follows is the obligation to reconstruct the argument so that the conclusion is sufficiently supported by the premises. There is no need for us to reconstruct the argument as deductively valid unless we have some additional reasons to do so. Certainly, arguers believe that they are giving reasons which entitle them, and others, to endorse the conclusion of their arguments; that arguers have these beliefs is a necessary condition for them to be making an argument. It would, therefore, seem that interpreters of arguments are obliged to reconstruct arguments such that the premises provide adequate justification for the conclusion, but adequate justification need not be deductively valid justification.

This point is nicely illustrated by Marcello Guarini's proposed method for reconstructing analogical arguments where "an important property of [the] . . .reconstruction is that the [premises] do not entail [the conclusion]" (Guarini 2004: pp. 161). Guarini's reconstructive strategy goes as follows:

1. a has features $f_1, f_2, ...f_n$

2. b has features $f_1, f_2, ...f_n$

3. Hence, a and b should be treated or classified in the same way with respect to features f_{n+1}

Imagine the following situation where the friend of a young boy named Charles is upset that a girl named Jessica was allowed on the ride when Charles was not. The friend of Charles might advance an analogy like the following:

1. Jessica is 5 foot 3 inches and she was allowed on the rollercoaster.

2. Charles should be treated in the same way as Jessica with respect to being allowed on the rollercoaster.

To evaluate this argument we would not, or for that matter need not, make this argument deductively valid. We would, following Guarini's reconstructive strategy, add the following premise:

1i. Charles is 5 foot 3 inches or taller.

We would then have an argument that provides sufficient justification for the conclusion, but is not deductively valid. This argument has the assumption (1i) which is needed in order for the premises to provide sufficient reason for the endorsement of the conclusion,

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but this needed assumption does not make the argument into a deductively valid argument. There is no need to add assumptions to this argument that make the argument deductively valid in order for the premises to justify the conclusion. We can see that because arguers must believe that the conclusions of their arguments follow from their premises does not mean that all arguments should be reconstructed as deductively valid. There may be other possible reconstructions that do the trick just as well as a deductive reconstruction. All that follows from the belief that the conclusion follows from the premises is that there is reason to reconstruct arguments such that their premises provide *sufficient justification* for their conclusion, where sufficient justification need not be understood as deductively valid justification.

Contrary to Groarke's claim, we are not especially warranted in reconstructing the rollercoaster analogy as deductively valid just because the argument has a rational structure such that the premises give reasons for the conclusion. Certainly a deductively valid reconstruction is possible, but so are many other potential reconstructive strategies. Because every argument has an associated-conditional, we do not get any closer to deductivism and, therefore, the logical-minimum does not constitute a reason for reconstructive deductivism. All that it shows us is that arguments must be understood as having a premise-conclusion structure such that their conclusion follows from their premises, where the sense of "follows" is weaker than entailment and includes structures of rational support that are not deductively valid (such as Guarini's suggested scheme for reconstructing analogical arguments).

Suppose a reconstructive deductivist wanted to make a case against Guarini's scheme for reconstructing analogical arguments. Here is one way that such a case might

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be made. The deductivist could assert that what gives the rollercoaster analogy its logical

force is its underlying deductive structure. A reconstructive deductivist might engage us

in Socratic dialogue in an effort to expose the underlying logical principles and beliefs

which would make the argument deductively valid. Consider the following dialogue:

> *Deductivist*: Was it Jessica's being 5'3" or her pigtails that allowed her to
> ride the rollercoaster?
>
> *Us*: It was her being 5'3".
>
> *Deductivist*: So having the property of being 5'3" or taller is sufficient for
> riding the rollercoaster?
>
> *Us*: Just so.
>
> *Deductivist*: And is Charles not 5'3" or taller, or were you lying earlier?
>
> *Us*: He is
>
> *Deductivist*: Well, then it would follow deductively from what you believe
> that Charles and Jessica should both be allowed to ride the rollercoaster.[3]

Moreover, the deductivist might press the point even further and claim that there is

nothing rationally forcing us to treat Jessica and Charles in the same respect unless the

principle "being 5'3" is sufficient for riding the rollercoaster" is a premise of our

argument. Not only do we believe in the truth of a valid-making principle, but should

that principle not be underlying our argument, then someone might always pose the

question—why should Jessica and Charles not be treated similarly?

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[3] This is an adapted version of a dialogue Christopher Viger developed in a commentary to an earlier version of
this chapter presented at the Canadian Philosophy Association, 2007. While in the commentary Viger is clear
that he disagrees with deductivism, and agrees with the general points made about psychological deductivism,
he does see this line of thought as one way a deductivist might respond to some of the arguments raised in this
section (Viger 2007: p. 3).

The problem with this response, I think, is that it does not recognize the defeasible character of the above analogical argument. In other words, it adopts a principle that is treated as being sufficient, when the principle that underlies this argument is not sufficient, but can be defeated. I understand the above argument to be defeasible. If it is discovered, for instance, that Charles is a notorious rollercoaster hooligan who frequently breaks the rules of the ride, then there exists a defeater for the argument. Similarly, if Charles is in a wheelchair, or if the rollercoaster is full, there would also be defeaters for the rollercoaster analogy. The principle underlying this argument would therefore, be defeasible and, thus, the argument would not be deductively valid based on an underlying principle of this sort.

A defeasible argument cannot be deductively valid because the truth status of its premises does not transfer with necessity to its conclusion. In a defeasible argument, the premises can be true, or acceptable, and the conclusion false or unacceptable. In this sense the inference to the conclusion is not a deductively valid inference in a defeasible argument. In defeasible arguments the conclusion can follow from its premises without its following necessarily. Given that it is entirely possible that an arguer could be aware of the defeasible character of their argument, they would not believe that "if their premises are true, then the conclusion is true," (Groarke, 1999: p. 6) because the premises of an argument that is defeasible can be true while the conclusion is false. However, because there is the potential for the conclusion to be false even when the premises are true does not suggest that the premises provide no reason to endorse the conclusion. There will be more to say about defeasibility later in this chapter.

Given the defeasible nature of many arguments, and given that arguers who explicitly disavow the entailment of their conclusion could very well be considering their premises to provide defeasible support for their conclusion, it seems likely that not all arguers believe that their conclusion follows from their premises necessarily.

We may conclude that Groarke's claim that we are warranted in reconstructing arguments as deductively valid because every argument has an associated-conditional in whose truth the arguer believes is false. We do not have any such warrant. Groarke's claim is false because there are non-deductive relationships between premises and conclusions such that the conclusions follow from premises without being entailed by them. Moreover, an arguer can have the belief that their conclusion follows from its premises without its being entailed by them. For sure, an arguer must have the belief that their argument's conclusion follows from their premises. But this belief offers just as much warrant to develop a reconstructive scheme in which the conclusion follows from the premises without being entailed by them as it does for us to reconstruct the argument as deductively valid. Therefore, because arguers must believe that 'my conclusion follows from my premises' does not justify reconstructive deductivism and, therefore, does not constitute a reason for reconstructive deductivism. This belief is just as much reason for any other reconstructive scheme that provides sufficient support for a conclusion as it is for reconstructive deductivism.

Therefore, Groarke's justification for reconstructive deductivism based on psychological considerations does not succeed. The claim that every arguer believes in an implicit conditional statement does not justify reconstructive deductivism. All that it would justify is that the arguer believes that their conclusion follows from their premises.

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And it is possible for this belief to occur outside the framework of an argument that is deductively valid.

In this section we have looked at some evidence that raises doubts about the success of the ontological and psychological justificatory strategies for reconstructive and strong normative deductivism. For the ontological justification we saw that many arguments are made where the arguer explicitly disavows that their conclusion is entailed by their premises. So the ontological deductivist needs to come up with a story for why we should think that texts that are explicitly designed not to entail their conclusion are, in fact, not arguments when they seem to satisfy the definition of the term 'argument'. This is not an inconceivable task, however, the burden of proof is on the ontological and psychological deductivist. Why should we think that all arguments are deductively valid when people advance deductively invalid claim-reasons complexes that satisfy the dictionary definition of 'argument'?

The psychological justification for reconstructive deductivism strikes me as having more promise. The psychological justification still has to, however, as we saw, provide an account for why arguers who explicitly disavow that some of their arguments do not entail their conclusions were wrong and that, in fact, these arguments do entail their conclusion. There are at least two ways that the psychological reconstructive deductivist might accomplish this task: (1) she might base her claim on empirical evidence about cognition (she might claim something like our reasoning functions according to the rules of deductive logic), and (2) she could provide an *a priori* reason based on what arguers must believe and be committed to in order to make an argument at all such that those commitments warrant us to reconstruct arguments as deductively valid.

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As with the ontological justification, in using (1) the burden of proof is on the deductivist. Given that the definition of argument accommodates non-entailing claims-reason complexes and that arguers often explicitly disavow entailment, without strong psychological evidence that such arguments are attempts at making deductively valid arguments, we do not have any reason to change our view that there are deductively invalid arguments. Groarke's psychological justification takes option (2). The problem that we saw with this justification is that it makes the claim that we are warranted in understanding transparently invalid arguments as valid ones because of the belief that every arguer has that their conclusions follows from their premises. This claim does not justify reconstructive deductivism any more than any other reconstructive strategy where the conclusion follows from the premises.

Given that Groarke's psychological justification for reconstructive deductivism does not succeed, and, given that, the burden of proof is on the reconstructive deductivist who would give an alternative account of the psychological or ontological justification, it is reasonable to be skeptical of the prospects for reconstructive deductivism on ontological or psychological justificatory strategies. The reconstructive deductivist must, therefore, shift to one of the other justificatory strategies, or come up with more evidence, if she is going to adequately justify reconstructive deductivism. They are also left with the option of adopting a different form of deductivism, like strong or weak normative deductivism.

4.4 The Normative Justification

As discussed in Chapter II, there is an interpretation of the quotation from Groarke discussed above (Groarke 1999: pp. 6-7, p. 97 above) which understands the quotation as a normative justification for reconstructive deductivism. We will have to investigate too see if this interpretation of the above quotation makes a better case for reconstructive deductivism than the psychological interpretation of it. The normative interpretation of this quotation places a standard on justification such that a conclusion cannot be said to be justified by its premises and, hence, cannot really be the product of an argument, if the argument cannot be understood as deductively valid. An argument, in virtue of its being a claim-reasons complex must be, at least implicitly, deductively valid. Validity is built into the very concept of argument on this reading. Therefore all arguments would be deductively valid. Any piece of discourse that purports to be an argument can be understood as deductively valid and in turn, when it is not already deductively valid, ought to be turned into a deductively valid argument by adding a premise which it requires to make its validity transparent. The normative interpretation of this quotation need not emphasize the arguer's beliefs. All this interpretation needs to claim is that all arguments are, in principle, linguistic complexes that are deductively valid. According then to the very conception of what an argument is—on the very standard placed on something that justifies or attempts to justify a conclusion with reasons—we attribute an underlying deductively valid structure to it. The normative justification for reconstructive deductivism states that any reason for some claim must entail the claim. If the reason does not entail the claim, then it cannot be considered a

reason for it. Hence, when an argument does not transparently entail its conclusion, then the argument can be reconstructed and evaluated by identifying a valid-making premise.

The notion, however, that an argument is *by definition* something that is deductively valid can be challenged on similar grounds that the psychological justification for reconstructive deductivism was challenged. For simply because you can understand an argument as containing the idea that 'the conclusion follows from the premises' does not mean that the argument is deductively valid: in other words, the standard of justification is not deductive validity but *rational support*. There seem to be many senses in which something can be a reason for a claim without entailing it. It is true that in inductive, or conductive forms of argument we can say that 'the conclusion of the argument follows from the arguments premises' and thus, in a sense, claim that 'if the premises, then the conclusion', but in these arguments this does not mean that the conclusion is entailed by the premises. There are many argument structures that satisfy the requirement of providing reasons for a conclusion without being deductively valid. Recall, once again, Copi's definition of argument and its distinction from a deductively valid argument. For Copi, "an argument. . .is any group of propositions of which one is claimed to follow the others, which are regarded as providing support or grounds for the truth of that one" (Copi 1978: p. 7). And it is, "only a deductive argument involves the claim that its conclusion provides conclusive grounds" for its conclusion, where providing conclusive grounds means the argument is deductively valid; that is to say, "its premises and conclusion are so related that it is absolutely impossible for the premises to be true unless the conclusion is true also" (Copi 1978: p. 32). The first concept, 'argument', is broader then the concept of 'valid.' Because the concept 'argument' is

broader than the concept of 'validity' there are other ways that a conclusion can follow from premises without being entailed by them. The multiplicity of potential rational structures from which a claim can be said to follow from reasons suggests that the structure of deductive validity is one structure among several that capture the relationship of rational consequence expressed within arguments. To my mind this is reason to question the claim that all good arguments must be deductively valid.

Groarke thinks that because every argument presumes the truth of its associated conditional, all arguments are implicitly deductively valid. But I think all that arguments presume is that their conclusion follows their premises. There is a plurality of ways that this is possible, so there would be a plurality of ways that a conclusion could follow from its premises.

Govier has a nice way of making this point. Govier critiques this deductivist view by stating that arguments can have different types of support relationships between their premises and conclusion. If an argument takes the general form P1; P2; P3; P1, P2, . . ., Pn then C; C, there are many different ways that the conclusion could follow from the premises. Here are some of the ways that Govier (1999: pp. 116-117) mentions:

1. P1-Pn ensure that C is true.

2. P1-Pn entail that C is true.

3. P1-Pn support C.

4. P1-Pn give good grounds for C.

5. P1-Pn give evidence for C

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Why, as Groarke insists, do arguments need to be understood such that their premises entail their conclusion? Groarke's response would be that the different premise-conclusion relationships in the above list can be captured within deductively valid arguments. He might use an example like the following:

1. A gives evidence for B

2. A

3. There is evidence for B

Deductive arguments, thinks Groarke, provide good grounds, give good evidence, and can capture a plurality of different kinds of support for conclusions because, according to Groarke, entailment need not make a conclusion definitively true. And, since every arguer has the belief that, "if the premises of my argument are true, then the conclusion is true" we can understand arguments as exhibiting a deductively valid standard of evidence.

This discussion captures a central difference between Groarke's view and that of my own and Govier's. One way to understand Groarke's point is by conceptualizing validity as equated with rationality. To see what I mean by this consider two of Groarke's statements earlier discussed. Groarke says:

A. "In this sense, their argument declares that they believe that these premises imply the conclusion, and that the conclusion is true if the premises are true" (Groarke 1999: p. 6) (validity).

B. It is perhaps worth noting that they are committed to this latter conditional not

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merely in the sense of material implication, but in the stronger sense that they

must believe that there is a relationship between their premises and conclusion

which makes it reasonable to base a belief in the latter on a belief in the former"
(Groarke 1999: p. 6) (rationality).

Groarke seems to be thinking here that rationality is equivalent with validity. But,

"While the content relations in B are stronger than in A the formal structure of B need not

be" (Viger 2007, p: 2). That is to say, the rational structure of arguments can often be

captured through reconstructions that are not deductively valid. We can express a

relationship of rational support in several different ways and need not be limited to

deductive validity. Groarke seems to think that because we can express all arguments as

deductively valid, an argument's being deductively valid is a condition of its being

reasonable—of its providing a reason for its conclusion. However, I think that this claim

misses that there are many ways that a conclusion can follow from premises without

being deductively valid. In other words, there are many rational structures that are not

deductively valid structures. Rationality is weaker than, and not equivalent to, deductive

validity.

But this line of criticism is nowhere near approaching conclusive. Groarke can

simply reply that we can always express arguments as deductively valid. So Groarke,

and Govier and myself end up in an unproductive stalemate. Groarke would insist that all

arguments can be captured as deductively valid arguments. Govier and I would claim

that there are deductively invalid ways of capturing a relationship of logical consequence

so there is no need to be a deductivist.

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What I hope this line of criticism shows is that there are many possible ways for conclusions to follow from a set of premises. This would challenge the normative justification since it would give us a reason to question the claim that the normative standard for inferential adequacy is deductive validity. We have just as much reason to understand arguments according to some other deductively invalid argument structure that would portray a relationship of rational consequence between the premises and conclusion as we do to understand them as deductively valid. I think that this line of thought offered by Govier and myself puts pressure on the normative deductivist to acknowledge that there are other standards of rational support that are not deductively valid in structure. And, hence, this line of criticism from Govier and myself challenges the normative justification for reconstructive deductivism by making space for sufficient non-entailing claim-reasons complexes.

Groarke, however, attempts to shift the balance of considerations in favour of reconstructive deductivism by making the following claim: "Why follow the standard practice and introduce a distinct conception of inductive arguments?" (Groarke 1999, 214). In this way, Groarke asserts that Ockham's Razor favors reconstructive deductivism. Groarke's shift of emphasis here highlights his pragmatic justificatory strategy. It is not because arguers beliefs warrant reconstructive deductivism, or that there is some normative standard on arguments that warrants reconstructing them as deductively valid; the strongest case that Groarke employs in favor of reconstructive deductivism is pragmatic. However, this justification can only succeed if reconstructive deductivism can be applied to all arguments. If there are arguments that warrant the use of some other reconstructive strategy, then the pragmatic efficacy of reconstructive

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deductivism would be called into question. The next section will consider the pragmatic

justification and illustrate why I think it does not work.\

4.5 The Pragmatic Justification

In the first chapter we saw that the pragmatic justification for reconstructive

deductivism did not make any claims about the beliefs that arguers may or may not have,

or about a normative standard that makes all arguments out to be deductively valid.

Rather, the pragmatic justification for reconstructive deductivism only claims that all

arguments that are not already transparently valid can be effectively evaluated by

reconstructing them as transparently deductively valid arguments. This version of

Groarke's defense for deductivism need not claim that reconstructive deductivism is

warranted by being based on an arguer's commitment to a belief in their arguments

associated conditionals, or based on a normative standard contained in the concept of

justification. This version of Groarke's defense would not be affected by the criticisms

raised in the previous section. This defense could admit that there are many different

types of premise-conclusion connections. Where deductive validity gains its special

status for a pragmatist about reconstructive deductivism is as a tool to evaluate arguments

that are not transparently deductively valid. By turning deductively invalid arguments

into arguments that are deductively valid, we are able to evaluate the deductively invalid

arguments. These arguments might support their conclusions according to a non-

deductive standard of evidence, but we can use reconstructive deductivism to evaluate

them. Reconstructive deductivism could then be favored by Ockham's Razor. Instead of

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using many different strategies to reconstruct and evaluate arguments, we can just use deductive reconstruction.

The natural criticism for this defense of reconstructive deductivism would be the existence of arguments that cannot be assessed as deductively valid arguments. I think that arguments with defeasible, or non-monotonic, inferences are cases of such arguments. Defeasibility is a form of inferences that is by its very definition not deductively valid. The *Stanford Encyclopedia of Philosophy* says that defeasible inference are:

> . . . that kind of inference of everyday life in which reasoners draw conclusions tentatively, reserving the right to retract them in light of further information. Such inferences are called non-monotonic because the set of conclusions warranted on the basis of a given knowledge base does not increase (in fact, it can shrink) with the size of knowledge base. This is in contrast to classical (first-order) logic, whose inferences, being deductively valid, can never be "undone" by new information.
> (Antonelli 2006: p. 1)

In other words, deductively valid arguments are monotonic because any premise that can be added to such arguments will not change the necessity with which the arguments inference to the conclusion is made. Arguments that are non-monotonic have defeasible inferences which can be defeated by the inclusion of additional information and are, therefore, not deductively valid. Consider this version of a of defeasible inference "that is ubiquitous in the literature" (Frankish 2005: p. 1),

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1. Most birds fly.

2. Tweety is a bird.

3. Therefore, Tweety most likely flies.

I think Groarke would say that this argument is deductively valid. While the certainty status of the conclusion is not guaranteed to be true the inference to the conclusion, according to Groarke, would transfer the certainty status of the premises over to the conclusion. In other words, according to Groarke, the conclusion is just as certain/true as the premises. Therefore, on Groarke's view, an argument like the above is "certainty preserving" (Groarke 1999: p. 3), and so, in NLD, it is deductively valid. If we endorse the premises, then we must endorse the conclusion as well. Given that this argument's inference is defeasible, however, the certainty of the premises need not be preserved in the inference made to the conclusion. Given that most birds fly it remains a possibility that some birds do not fly. Given that this is a possibility there are situations in which the acceptability of the conclusion will not be guaranteed by the premise. If, for instance, Tweety is a penguin, or Tweety has a broken wing, or Tweety is a chick, etc., then the inference is not acceptable. Here is what the argument with such an unacceptable inference would look like in standard form.

1. Most birds fly.

2. Tweety is a bird.

3. Tweety is a penguin.

4. Therefore, Tweety most likely flies.

But the inference is not acceptable given this additional information. Moreover, the premises in the above argument are all true/acceptable, but the conclusion is not. Therefore, for the original Tweety argument, it is possible for all the premises to be true and acceptable and the conclusion false/unacceptable. The inference to the conclusion would then not be deductively valid.

Let us look more closely at one of the examples used by Groarke to show that he does treat arguments, like the above, which have defeasible inferences, as deductively valid arguments with necessary inferences. Groarke uses the following argument as a deductively valid reconstruction of an inductive argument:

'Howl' is superficial and dated. 'The Second Coming' has profound social significance. *A poem which has a profound social significance is a finer poem than one which is superficial and dated.* Therefore, 'The Second Coming' is a finer poem than 'Howl' (Groarke 1999: pp. 8).

Groarke adds the premise in italics to the argument which previously did not include that premise and claims that the argument is now deductively valid. If the arguer has reservations that poems that are superficial and dated could be better than ones with profound social significance for technical reasons, then Groarke advocates the following deductively valid reconstruction:

'Howl is superficial and dated. 'The Second Coming' has profound social significance. *A poem which has profound social significance is probably a finer poem than one which is superficial and dated.* Therefore, 'The Second Coming' is *probably* a finer poem than 'Howl' (Groarke 1999: pp. 8).

However, contrary to Groarke's claim, this argument is not deductively valid, but defeasible. The conclusion might be unacceptable even if the premises are acceptable. To see that this is so, add to this argument the following two premises: "'Howl' is the most innovative and technically sophisticated poem of the 20th Century" and "Hardly anyone reads 'The Second Coming' anymore." With the addition of these premises, which are consistent with the other premises being acceptable, it would become more difficult to acceptably infer that "'The Second Coming is probably a finer poem than 'Howl.'" In other words, the premises of the above argument could be acceptable while the conclusion is not acceptable and, therefore, the inference to the conclusion would not be certainty preserving.

I want to look carefully at how a reconstructive deductivist using the pragmatic justification would evaluate an argument with a defeasible inference. I think that either they would have to evaluate the argument as being a non-deductive, defeasible, argument—which would be contrary to reconstructive deductivism or they would have to distort the argument during reconstruction to turn it into a deductively valid argument. Consider the following argument:

1. Jackson is a Beatles fan.

2. Therefore, Jackson probably likes the song 'While My Guitar Gently Weeps'.

A reconstructive deductivist would add the premise:

A Beatles fan probably likes the song 'While My Guitar Gently Weeps'.

And treat the argument as deductively valid—as certainty preserving. Let's assume that the premise is acceptable that a Beatles fan would probably like the song 'While My Guitar Gently Weeps'. Treating this premise as acceptable, however, does not tell us the degree of certainty or acceptability that can be placed in the inference because the premise *could be* acceptable and the conclusion unacceptable. Even if this premise is thought to be unacceptable the conclusion could be acceptable. In other words, the acceptability of the inference might be the opposite acceptability of the premise, and thus evaluating the acceptability of the premise does not tell us about the acceptability of the inference. After all Jackson might be a Beatles fan but not a fan of George Harrison's work, or perhaps Jackson never warmed to Eric Clapton's guitar playing (who played guitar on the recording of that song), or, maybe Jackson has never heard that Beatles song. The reconstructive deductivists' valid-making premise does not give us a reliable assessment of the inference to the conclusion because the premise could be completely acceptable when the inference can be defeated. Look back at the Tweety example for a moment. The valid-making premise for,

1. Tweety is a bird.

2. Therefore, Tweet most likely flies.

is as acceptable a premise as one can get. In fact, the premise is true. It is true that 'most birds fly.' However, given this high degree of acceptability in the valid-making premise of this argument, we cannot determine the acceptability of the inference because the inference can be defeated by the addition of further information (or strengthened).

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Perhaps the deductivist might go further in reconstructing this argument. The deductivist might add another premise to make the argument deductively valid. They might add a premise like:

Tweety is a typical bird.

Or for the Beatles argument,

Jackson is among most Beatles fans.

Here is an argument where Groarke adds a similar premise as part of a reconstructive deductivist strategy,

Ninety-six percent of adult Americans watch television more than

ten hours per week. Davis is an adult American. Therefore, Davis

watches television more than ten hours per week. (Groarke 1999:

p. 8)

to which Groarke adds the premise

Davis is among this ninety six percent.

In adding this premise, however, I think Groarke has changed the argument. Given that both 'Davis is an adult American' and that 'Ninety-six percent of adult American's watch television more than ten-hours per week,' there is no need to think that Davis is part of this ninety-six percent. In fact, these claims leave open the possibility that Davis is not amongst this ninety-six percent. The claims in the original argument give us defeasible support to think that Davis probably watches television more than ten hours a week, but not deductive support. Adding the above premise is, in effect, to say that 'Davis does watch television more than ten hours per week' when that claim was not a part of the original argument. An interesting property of arguments that are defeasible is that their

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inferences can be strengthened or weakened by the addition of further evidence. If we

add to this argument the premise 'Davis is among this ninety-six percent' then the

argument no longer exhibits this characteristic. Instead, the claim that 'Davis watches

more than ten hours of television a week' follows necessarily. No matter what

information we add to this argument, the inference to the conclusion remains necessary.

I think that if a reconstructive deductivist makes a move like this, then she ends

up evaluating a different argument than the one they started out evaluating. In the initial

arguments there was no presumption that Tweety is a typical bird, that Jackson was

among most Beatles fan, or that Davis was amongst the ninety-six percent of Americans

who watch more than ten hours of television a week. Indeed, an important part of those

inferences is that they are open to Tweety being an atypical bird, Jackson not being

amongst most Beatles fans, or Davis falling into the four percent who do not watch ten

hours of television a week. If the reconstructive deductivist makes such a move and adds

this sort of valid-making premise to a defeasible argument, then it seems that Govier's

lens analogy becomes very appropriate. If we look at arguments like the Tweety

argument, the Beatles argument, or the Davis argument, or any argument with a

defeasible inference through the spectacles of deductive validity, then we see the

argument through lenses that distort its logical and rational structure. Like looking at the

world through purple lenses and seeing everything as purple we would, in evaluating

defeasible arguments as deductively valid, have a distorted image of the way things are.

Johnson's criticism based on the fourth adequacy condition also seems to take on

new significance when examined in light of defeasible inferences. Treating inferences

that can be made stronger or weaker by the addition of new information as "all or

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nothing" (Johnson 2000: p. 79) inferences seems inappropriate. Theses inferences are not all or nothing. It is not the case that Tweety, being the bird that she is, *must* most likely fly. Tweety's being a bird entitles us to infer that Tweety might fly. But this is not an all or nothing matter. Rather the strength of defeasible inferences can alter along various grades of strength depending on new information. It seems inadequate to treat these arguments as deductively valid when the acceptability of the conclusion follows only *tentatively* from the premises. As Frankish (2005) says of such non-monotonic inferences, "in contrast with deductive inference, the conclusion drawn may be withdrawn in the light of further information even though the original premises are retained" (Frankish 2005: p. 1)

I take such considerations to offer a challenge to the pragmatic justification for reconstructive deductivism. The pragmatic justification only works if reconstructing all arguments as deductively valid is a useful strategy for evaluating arguments. I contend that defeasible inferences cannot be usefully evaluated through reconstructing them as deductively valid without distorting the argument under evaluation. Rather, systems of non-monotonic logic are required to evaluate arguments with defeasible inferences.

The evidence that arises from defeasible inferences suggests that there is reason to think that not all arguments can be effectively evaluated as deductively valid arguments. This would then directly challenge the success of the pragmatic justification for reconstructive deductivism. It is possible that the reconstructive deductivist might have a method to evaluate defeasible arguments, however, until they demonstrate a satisfactory version of reconstructive deductivism that can account for defeasible inferences without

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distorting arguments then there is reason to be skeptical about the prospects for reconstructive deductivism even on the pragmatic justification.

4.6 Strong and Weak Normative Deductivism

Strong normative deductivism is the view that the only good arguments are deductively valid arguments. This position only works if we are willing to consider strong inductive arguments and abductive arguments, and perhaps conductive arguments, not to be good arguments. This seems to go contrary to some very strong intuitions we have about what a good argument is. Consider the following strong inductive argument:

1. John has asthma.

2. John is 90 years old.

3. John has had a hip replacement.

4. Therefore, John will not run a four-minute mile.

This example of a strong inductive argument seems to provide some compelling reasons for the conclusion. The standard of argument goodness used by the strong normative deductivist, therefore, seems unreasonable. Strong normative deductivism has the same problems that the normative justification for reconstructive deductivism was shown to have. There seems to be normative standards of inferential adequacy that are not deductively valid. It follows then, if we are going to develop a compelling version of normative deductivism, it would have to be a form of weak normative deductivism.

As we discussed in Chapter I, however, weak normative deductivism might end up being a very weak version of deductivism. Consider what happens to the above argument when we turn it into a deductively valid argument.

1. Anyone who has asthma, is 90 years old, and has had a hip replacement will not run a four-minute mile.

2. John has asthma.

3. John is 90 years old.

4. John has had a hip replacement.

5. Therefore, John will not run a four minute mile.

This argument is a deductively valid version of the above inductive argument. According to a weak normative deductivist it is, therefore, a better argument. It is important to note, however, that this argument is not significantly better than the original argument. Its rational force is only marginally stronger than the inductive argument. Certainly the inference to the conclusion is necessary. And, in so far as the inference to the conclusion of the inductive version of the argument is not necessary, the deductively valid version of the argument is a better argument. However, the inference is not a significantly stronger inference than was the original inductive inference. If we are going to adopt a weak normative deductivism and admit that inductively strong arguments can have almost as good inferences as deductively valid arguments, we will then have a very weak version of deductivism indeed.

It is even reasonable to claim that a plausible version of weak normative deductivism that recognized that strong inductive arguments have inferences that are

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almost as good as deductively valid arguments is not properly labeled a form of deductivism. Rather, it seems more like a version of pluralism or perhaps some sort of spectrum theory about inferential strength. Technically, weak normative deductivism seems to have things right. It is important to acknowledge, however, that such a brand of deductivism could potentially admit many deductively invalid arguments into the class of good arguments. Indeed, many of these good arguments that are deductively invalid might be almost as good as deductively valid arguments, so the normative deductivism would be a very weak version of normative deductivism indeed.

4.7 Conclusion

We have examined the justifications for reconstructive deductivism and strong normative deductivism. We began with a criticism of the psychological and ontological justifications for reconstructive deductivism. The psychological and ontological justifications need to explain why many arguers explicitly disavow that their conclusion is entailed by their premises. I thought of two ways that the psychological reconstructive deductivist could explain this: 1) uncover empirical evidence about human psychology that says that humans always attempt to make valid arguments; or, 2) show that arguers have beliefs that their argument entails their conclusion based on an analysis of the conditions of making an argument. (1) Adopts the burden of proof because until there is compelling empirical evidence that indicates human psychology is such that all arguments are deductively valid, we should stick with the current conception of argument as a claim-reasons complexes which can accommodate deductively invalid arguments.

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This same point also counts against the ontological justificatory strategy. In critiquing that strategy, we developed a criticism of Groarke's view that because arguers must believe in the truth of the associated-conditional for any argument they make, we can reconstruct that argument as deductively valid. We saw that there is no special reason to reconstruct arguments as deductively valid on the grounds that they must believe in their argument's associated-conditional. All that the belief in the associated-conditional commits the arguer to is the view that their conclusion follows from their premises and there are potentially many ways in which they can do that. Therefore, reconstructive deductivism is not justified by Groarke's discussion of the associated-conditional.

Groarke might dig his heals in at this point and highlight the normative character of his justification for reconstructive deductivism. He might claim that there is a normative standard for argument such that there can be no justification of an argument's conclusion unless the conclusion is understood as being entailed by the premises. If this normative standard were true, then without the argument being understood as deductively valid its conclusion would not follow from its premises. The problem with this is that there are many ways that a conclusion can be rationally supported by some premises without those premises entailing the conclusion. Making entailment a normative standard is not necessary. Indeed, because every argument contains the view that "the conclusion follows from the premises", and the concept 'follows' is generally thought of as broader than entailment it makes sense for there to be non-entailing ways that a conclusion can be justified. Here we would end up with more of stalemate, however, than a conclusive counter claim against the normative justification.

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Groarke attempts here to shift the balance of considerations in favour of reconstructive deductivism by advancing the view that it is favored by Ockham's razor. This justification highlights the pragmatic usefulness of reconstructive deductivism. Ultimately reconstructive deductivism will fail, however, if there are arguments that cannot be adequately captured as deductively valid arguments. I made the case that there are such arguments. Examples of such arguments are arguments with defeasible inferences that are captured in the "family of formal frameworks" called non-monotonic logic (Antonelli 2006: p. 1). If a plausible version of reconstructive deductivism is to be advanced, then it must have a way of satisfactorily accounting for defeasible inferences under a deductive framework. The existence of defeasible inferences would indicate that there is necessity to use deductively invalid reconstructive approaches to evaluate arguments and, hence, reconstructive deductivism cannot rely on Ockham's razor. The pragmatic effectiveness as a method for evaluating arguments would be called into question.

Having raised some substantial doubts for the possibility of reconstructive deductivism, we switched focus to strong and weak normative deductivism. I claimed that strong normative deductivism places an unreasonable standard on argument goodness. There are many very strong inductive arguments that would not be good arguments according to the strong normative deductivist. Treating strong inductive arguments, for instance, as bad arguments, however, strongly conflicts with some of our basic logical intuition that such arguments are good. Weak normative deductivism seems like a more plausible position. Weak normative deductivism, indeed, seems to have things largely correct. However, weak normative deductivism may be such a weak

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version of deductivism that it does not warrant consideration as being a form of deductivism. Even if it is granted that making a strong inductive argument deductively valid does make it a better argument in the sense that its conclusion would follow necessarily when it did not previously, it is difficult to see that this would make the argument inferentially better to a significant degree. This suggests that there are standards of goodness for inference that are very close to deductive validity. So, while technically weak normative deductivism may be thought of as a version of deductivism, it is very close to pluralism—the view that there are many different standards of evaluation for arguments.

I can, therefore, sum up by saying that there is reason to be skeptical about the prospects of reconstructive deductivism because important doubts can be raised about each one of its justificatory strategies and, most importantly, that there are arguments with defeasible inferences which cannot be evaluated through deductive reconstruction. Strong normative deductivism seems to have an unreasonable standard for argument goodness and weak normative deductivism, while apparently correct, may be a very weak version of deductivism since there exist strong inductive arguments that would be nearly as inferentially adequate as deductively valid arguments. Weak normative deductivism may be better understood as a variation of pluralism or spectrum theory than as a form of deductivism.

CONCLUSION

In this thesis, I have sketched the conceptual terrain of deductivism in informal logic and argumentation theory and raised some criticisms against deductivism as a theory of inferential adequacy. I developed definitions for three different types of deductivism: strong normative deductivism, weak normative deductivism, and reconstructive deductivism. Some general strategies for how these different varieties of deductivism might be justified were also presented. These justificatory strategies were ontological, psychological, normative and pragmatic; the latter two can be applied to strong normative deductivism, and all four can be applied to reconstructive deductivism.

I applied this categorization scheme to Leo Groarke's defense of deductivism and developed an interpretation of Groarke's version of reconstructive deductivism whereby it was understood to employ three of these four justificatory strategies. In order to justify reconstructive deductivism I claimed that Groarke uses psychological, normative and pragmatic justificatory strategies.

Next I examined some of the criticisms of deductivism that have been raised within the informal logic and argumentation theory literature. I looked at Govier's criticism and Groarke's response to these criticisms. Govier developed some compelling criticisms against normative deductivism, but Groarke's response developed a reconstructive deductivist thesis that I argued goes some way to addressing these criticisms. Johnson criticized FDL-deductivism on the grounds that it cannot satisfy the adequacy conditions that a good theory of argument ought to satisfy. While these criticisms are good reasons to abandon FDL as a theory of inferential adequacy, a more

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fully developed version of reconstructive deductivism—like that of Groarke's—seems more resistant to the criticisms raised by Johnson.

In the final chapter of my thesis, I developed some of my own criticisms against strong normative deductivism and reconstructive deductivism. I pointed out some problems that I think arise with each of the justificatory strategies for reconstructive deductivism and showed how these problems apply to Groarke's version of reconstructive deductivism. We saw that a psychological justificatory strategy has to come up with an account of why some arguers deny that they are attempting to entail their conclusion. The psychological reconstructive deductivist has two options:

i)   come up with empirical evidence about human
psychology that would prove that any argument is
an attempt at a deductively valid argument.

ii)   make a case that there are *a priori* considerations
that establish that arguers have beliefs or intentions
that make their argument an attempt at a valid
argument even when they deny that their arguments
are valid.

Option (i) places the burden of proof on the deductivist. Empirical evidence that establishes that all arguments are deductively valid is needed to make this case. Until such evidence is provided there is reason to be skeptical about the prospects for deductivism on this justification because it would strongly conflict with our intuition that

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we often are not trying to make deductively valid arguments. Option (ii) is the one that I understand Groarke to take. Groarke claims that every argument can be understood as deductively valid because its arguer must believe that the conclusion follows from the reasons used to support it. The arguer would then believe that her argument can be captured by a conditional statement that makes the reasons out to be the antecedent and the conclusion out to be the consequent. However, because an arguer thinks her arguments can be captured by such a conditional does not give us any more reason to understand the arguer as making a deductive argument than it would give us reason to understand an arguer as advancing some non-valid argument structure such that the claim follows from the reasons for it. Therefore, this does not constitute a reason for reconstructive deductivism any more than it would constitute a reason for some other reconstructive strategy.

The normative justificatory strategy holds that any reason for a claim must be such that it entails that claim. We may add premises to the claim-reasons complex to expose to expose the valid connection that exists between a claim and the reasons for it. However, this runs into similar problems that option (ii) for the psychological reconstructive deductivist did. There are many arguments that provide support that is not deductively valid support. The very definition of argument would suggest this. Copi's definition of argument states that: "an argument . . . is any group of propositions of which one is claimed to follow from the others, which are regarded as providing support or grounds for the truth of that one" (Copi 1978: p. 7). For Copi, "only a deductive argument involves the claim that its conclusion provides conclusive grounds," where providing conclusive grounds means the argument is deductively valid; that is to say, "its

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premises and conclusion are so related that it is absolutely impossible for the premises to be true unless the conclusion is true also" (Copi 1978: p. 32). Copi's conception of argument and of deductive validity articulates the standard conception of these concepts. An argument, or a rational claim-reasons structure, is weaker than deductive validity. To 'follow from' need not be to 'follow *necessarily* from': a claim can follow from some reasons such that it is *possible* for the conclusion to be false when the premises are true, although a conclusion can also follow in a way where it is *impossible* for it to be false when the premises are true. The latter is a stronger sense of what it means for a conclusion to follow from some premises than the former. Hence, the concept of 'argument' does not have to be equated with 'deductively valid' argument. Moreover, given that pieces of discourse that we consider arguments seem to offer non-deductive support for a conclusion, there is no reason to change our conception of argument to the more narrow conception that would identify argument with deductive validity.

Groarke, however, attempts to shift the balance in favour of reconstructive deductivism by invoking Ockham's Razor. Reconstructive deductivism is an easy heuristic that can be applied to any argument. We need not, here, invoke normative or psychological considerations. Reconstructive deductivism is a useful method for evaluating arguments whether or not they are defined as being deductively valid or whether or not an arguer has beliefs that make her argument an attempt at being a deductively valid. However, I argued that there is a necessity to have additional, non-deductive, evaluative strategies. For instance, reconstructing defeasible arguments as deductively valid is problematic. Reconstructive deductivism is not an adequate or useful way to evaluate defeasible inferences, at least in its current formulation.

We then moved on to assess strong normative deductivism and weak normative deductivism. Strong normative deductivism is implausible because it makes arguments that have good inferences out to have bad ones. Strong inductive arguments, for instance, are not good according to strong normative deductivism. Weak normative deductivism seems to have things right. It is, however, questionable to what extent weak normative deductivism is a version of deductivism or a form of pluralistic or spectrum view of inferential adequacy.

I do not understand the line of argument developed here to be conclusive. There is significant room for response on behalf of the deductivist, and there are many interesting questions that emerge in regards to the exact content of a weak normative deductivism. Here are some of the avenues for criticism that I think are open to a deductivist:

i) Develop a justification for a version of deductivism not considered in the categorization scheme.

ii) Challenge the viability of the categorization scheme as a way to understand deductivism.

iii) Develop a convincing case for ontological deductivism.

iv) Come up with empirical evidence that establishes weak psychological deductivism.

v) Show that the standard definition of argument is inadequate and should be supplanted by a definition that equates argument with deductive validity.

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vi)   Develop a method to evaluate defeasible inferences

within a deductivist framework.

This list of possible rejoinders may not be exhaustive, although these are some possibilities that come to my mind for how a deductivist might respond to the line of thought advanced in this thesis. I do not think that any of these rejoinders are promising, although I want to remain open to the possibility that one of them might work out.

I think the most interesting questions concerning the future prospects of deductivism concern weak normative deductivism and the extent to which inferences may be adequately evaluated through deductive reconstruction. For instance, what is the role of deductive validity in argumentation? When is it appropriate to use the deductive standard of evidence? Are deductively valid inferences on one end of a spectrum of inferential strength? Or, are they one type of inference amongst others types? If the latter, how many alternative types of inference might there be and how are they related to deductively valid inferences? Which arguments can be evaluated by reconstructing them to be deductively valid? Which cannot? In my view these are all questions worth future investigation. While the initial inclination that some form of deductivism could be applied to evaluate all inferences seems to be a sound philosophical instinct, the evidence seems to indicate that such a version of deductivism will not work. However, deductive arguments remain an important type of argument and there is much room to explore exactly what their importance is and ought to be.

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