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Phones: +56-2-26768707, +56-2-26768702
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Contents

Articles

Book Reviews

COGENCY Vol. 8, No. 2 (7-31), Summer 2016 ISSN 0718-8285

Toulmin's Analytic Validity

Validez analítica en Toulmin

David Botting

Universidade Nova de Lisboa, Lisboa, Portugal
davidbotting33@yahoo.co.uk

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Abstract: Although Toulmin says several things that are plainly false, I hope to show in this paper that Toulmin's conception of analytic arguments is not as incoherent as some have supposed and does in fact classify a theoretically significant class of arguments. However, analytic validity turns out to be not much different from semantic validity. Since the distinction between formal validity and semantic validity is well recognized by logicians, the charge made by Toulmin that they could not accept the distinction between formal validity and analytic validity is confounded. This eliminates one major plank in the case he builds against the analytic ideal. Thus, I want to defend Toulmin's conception but reject the moral he draws from it.

Keywords: Toulmin, logic, analytic arguments, formal validity, analytic validity.

Resumen: Aunque Toulmin dice varias cosas que son directamente falsas, espero mostrar en este trabajo que la concepción de Toulmin de argumentos analíticos no es incoherente como algunos han supuesto y que de hecho clasifica una clase teóricamente significante de argumentos. Sin embargo, la validez analítica tiende a ser no muy diferente de la validez semántica. Dado que la distinción entre validez formal y validez semántica está bien señalada por los lógicos, el alegato hecho por Toulmin de que no se podría aceptar la distinción entre validez formal y validez analític está confundida. Esto elimina uno de los grandes hitos en la empresa que él construye en contra el ideal analítico. De modo que me gustaría defender la concepción de Toulmin, pero rechazando la moraleja que él obtiene de ella.

Palabras clave: Toulmin, lógica, argumentos analíticos, validez formal, validez analítica.

1. Introduction

The distinction between analytic and substantial arguments is described by Toulmin (1958, p. 138) as the most "fundamental". In this paper I will be saying very little about substantial arguments or substantial validity. I will be focussing on what I take to be the most interesting and important part of Toulmin's discussion, namely the claim that there can be analytic arguments with only probable conclusions. The importance of this is that if there are such arguments, then Toulmin sees this as a problem for formal logicians, because they take analytic arguments and necessary arguments to be co-extensive (and consequently analytic arguments and probable arguments to be mutually exclusive). It will be shown later how this is just one part of a wider strategy aimed at discrediting formal logic and what Toulmin calls the "analytic ideal." It will also be shown that other aspects of this wider strategy fail, often for quite trivial reasons. This emphasizes the importance of whether this class of analytic probable arguments exists, for in the end, most of Toulmin's case hangs on it. I will argue that it does exist, but that formal logic effectively already deals with it through the distinction between formal and semantic validity. Thus, although I do not pretend to be offering a comprehensive refutation of Toulmin's attack, I intend to dismantle a major part of it and show that it is Toulmin, and not the formal logicians, who is confused.

Formal logicians, then, claim that analytic arguments and probable arguments are mutually exclusive, and so there are no analytic probable arguments by definition. If Toulmin can show that there are such things, then such would be counter-examples to the logician's claim and definitions. There is one immediate objection to proposing analytic arguments with only probable conclusions as counter-examples that we must deal with from the start. Toulmin's necessary/probable distinction is quite different to the logician's necessary/probable distinction. The formal logician makes the distinction on the grounds of the relation between the premises and the conclusion, while Toulmin makes it on the grounds of whether there is a "probably" (or something similar) in the conclusion. The two classes that formal logicians would claim to be co-extensive are arguments whose conclusions follow necessarily from their premises (necessary) with arguments whose conclusions have meanings that are somehow contained in the mea-

nings of the premises (analytic). They are neutral on how those conclusions (or premises, for that matter) themselves are qualified. For instance,

P
if P then probably Q
Therefore, probably Q

is, according to the formal logician, a perfectly necessary, analytic, and formally valid argument despite the occurrence of "probably" in the conclusion. It is necessary on the logician's account of the necessary/probable distinction, but probable on Toulmin's account. There is nothing in the fact that an argument can be "probable" in Toulmin's sense of the word yet analytic to bother the logician or justify the accusation that formal logicians make a mistake of conflating necessity with analytic and/or with formal validity — on the logician's own conception of necessary arguments, they *are* co-extensive with analytic and formally valid arguments, and showing that they are not co-extensive with *Toulmin's* conception of necessary arguments proves nothing. A genuine counter-example would not be – as Toulmin supposes – an analytic argument with a probable conclusion, but an analytic argument whose conclusion does not follow necessarily from the premises.

One might think, then, that Toulmin is on a hiding to nothing from the start. However, there is a type of argument that seems to be probable on *both* ways of understanding the necessary/probable distinction: statistical syllogisms. The formal logician would not count these as necessary or analytic, on the logician's own conception of necessity and analytic validity. However, Toulmin wants to argue that this is an unprincipled restriction on what we are prepared to call analytically valid: there are arguments that we really should say are analytically valid but are not necessary (or, for that matter, formally valid). In fact, it will turn out that they may even have false conclusions! If there really is such a class of arguments, there is a problem for the formal logician after all: the logician cannot count such arguments as analytic if being analytic is co-extensive with being necessary and thereby excludes being probable.

There are two ways that defenders of formal logic might choose to respond: a) deny the coherence of Toulmin's conception of analytic arguments

so that there is no such class, or; b) concede its coherence but deny that it is a significant departure from what is already admitted within the bounds of logical theory. Though no friend to formal logicians, Hamby (2012) argues vigorously for the first of these, and despairs that what Toulmin has described as "most fundamental" has turned out to be incoherent. I will argue that Hamby's arguments fail, and take the second, more difficult option of trying to show that although it is coherent, analytically valid statistical syllogisms are not the problem for formal logicians that Toulmin supposes. I aim to do this by showing that, when Toulmin's tests for analyticity are worked out, what they detect amounts to arguments that can justifiedly *be thought to be* semantically valid, even though not all of them actually *are* semantically valid. Since semantic validity is a well-known concept well-established in logical theory, the anti-logic moral drawn by Toulmin from this case does not follow.

I want now to put Toulmin's counter-example into its wider context, for it is only one plank in a more comprehensive attack against what Toulmin calls the 'analytic ideal'. Because Aristotle's syllogisms are analytic, formal logicians have made analyticity a standard to which all arguments must conform or otherwise be judged invalid. But Toulmin urges that syllogisms are unrepresentative of valid arguments as a whole but are only a special case where analyticity, necessity, formal validity, being "warrant-using", and being expressed in logical words all come together, and so it is wrong to take analyticity or anything else named here as criterial for validity:

> [L]ogicians thereupon conflated our five distinctions into one single distinction, which they made the absolute and essential condition of logical salvation. Validity they would from now on concede only to arguments which passed all the five tests, and the analytic syllogism thereby became a paradigm to which all self-respecting arguments must conform.
>
> This overall, conflated distinction had to be marked by some pair of terms, and a number of different pairs were used at one time or another: 'deductive', 'conclusive' and 'demonstrative' to mark the favoured class of arguments, 'inductive', 'inconclusive', 'non-demonstrative' for the remainder. . . [L]et us use a term which has been very commonly associated with this conflated distinction, namely 'deductive'.[1] (Toulmin, 1958, p. 138)

[1] It should be noted that Toulmin identifies "deductive" with "deductively valid".

In general, Toulmin claims, these are not co-extensive, and it is a conflation, brought about by generalizing from a biased sample, to take them as so. Thus, Toulmin intends to create problems for formal logicians by arguing that there can be valid arguments that are necessary but not formally valid, necessary but not warrant-using, etc. These will be counter-examples to the logician's taking necessary arguments to be co-extensive with formally valid arguments and with warrant-using arguments, to give just two of the possible permutations. In particular for our purposes, he argues that there are analytic arguments that are not necessary; the analytic/substantial distinction is not the same as the necessary/probable distinction.

One wonders whether Toulmin is really being fair to the formal logicians here. Logicians recognize at least two conceptions of validity: formal validity and semantic validity. These types of validity are backed by different definitions: the proof-theoretic definition (which says that an argument is valid if its conclusion can be derived from the premises by applying the rules of the logic) and the model-theoretic conception (which says that an argument is valid if it impossible for the premises to be true and the conclusion false). These two validities are not co-extensive: the set of formally valid arguments are a proper subset of the set of semantically valid arguments, that is to say, not all semantically valid arguments are formally valid and so they cannot be proved.[2] Now, there are arguments that are analytic but not necessary, says Toulmin, but if this boils down to saying that there are semantically valid arguments that are not formally valid, then Toulmin is plainly wrong to say that logicians neglect this distinction. At worst, the logician has to choose whether to call semantically valid arguments "necessary" or not. Often they do.

[2] This might be thought be in conflict with the completeness of classical logic, but it is not: what completeness says is that tautologies of the formal language are semantic entailments, and all of these are also logical entailments. There can be tautologies of natural language that are not tautologies of the formal language; e.g., "If this apple is red then it is coloured" is a tautology in natural language but its formal translation "If *p* then *q*" is not a tautology. Despite this, formal logicians often consider "This apple is green; therefore, it is coloured" as a semantically valid argument though not formally valid. Tarski (1936/2002), in fact, introduces the model-theoretic conception precisely because he thinks that the proof-theoretic conception is not adequate to these kinds of examples. It does not conflict with the completeness theorem, then, to say that semantic validity understood this way has a wider extension than formal validity. Every argument that is formally valid will, of course, be semantically valid.

The counter-example we are going to discuss is, then, one of several that Toulmin proposes. However, I want to argue now that it is the main one; by showing the weakness of the others, I wish to emphasize the importance of the main claim in this paper. Toulmin's case against logic is then shown to rest heavily on there being analytic but probable (in the logician's sense) arguments. If I am right, then although Toulmin is left with a coherent, and (dare I say) interesting conception of analytic validity, not only is his proposed counter-example not really a counter-example, but his case against formal logic collapses entirely.

Three of the distinctions can be dealt with easily: necessary/probable, formally valid/cannot hope to be formally valid,[3] expressed in logical words/not so expressed. By the last distinction, what Toulmin seems to mean are arguments whose validity is explicable by reference to the meaning of the logical words alone,[4] and those that are not so expressed, or in other words, those whose associated conditionals are tautologies of the formal language, and those that are not. Obviously, arguments whose validity is explicable in this way will be formally valid,[5] and those whose validity

[3] I think Toulmin is distinguishing here between types of *valid* argument. He describes as formally valid those arguments "set out in such a way that its conclusion can be obtained by appropriate shuffling of the terms in the data and warrant" (Toulmin, 1958, p.137). But what does he mean by "appropriate"? Some shufflings of terms will give clearly false conclusions (Bermejo-Luque, 2011, p. 92). But if it is valid arguments that Toulmin has in mind, the appropriateness will be defined by the rules of inference. It seems that Toulmin has the proof-theoretic conception of validity in mind here: an argument is valid if its conclusion can be derived from its premises by using rules of inference.

[4] It is quite true that formally valid arguments depend on being able to distinguish "logical" words from "non-logical", and also true that it is not obvious how this is to be done. Again, Tarski (1936/2002) raised this problem twenty years earlier, so if this is what bothers Toulmin (though Toulmin never actually says so) he certainly cannot say that logicians neglect this distinction.

[5] This may be hasty because there are some things that are expressed entirely in logical words, and are true, and yet we would not like to say are logically true. For example, $\exists x. \exists y. x \neq y$ says that there are at least two things in the universe of discourse. If we count identity as a logical word, then the expression's truth depends entirely on the meaning of the logical words since there simply *are* no non-logical words, which is to say that if the expression is false (i.e., there are less than two things), then it comes out as a logical falsehood, and if it is true (i.e., there are at least two things), then it comes out as a logical truth. But this, surely, is counter-intuitive. Since Toulmin never considers anything like this, I see no good reason for Toulmin to distinguish between arguments that are formally valid and arguments whose validity depends only on logical words or any justice in his charge that it would be a mistake to take them as co-extensive.

is not explicable in this way will not be formally valid. It is no error then, to take these two distinctions as co-extensive, and, in fact, this seems to be one case where Toulmin does not present a counter-example; he does not offer us a valid argument that is formally valid but whose validity is not explicable by reference to the meaning of the logical words alone, or one whose validity is explicable by reference to the meaning of the logical words alone but is not formally valid. The case rests, then, on whether there are arguments that are formally valid and/or expressed in logical words but not necessary. Of course, in Toulmin's sense of the necessary/probable distinction there can be; we saw earlier a formally valid argument whose conclusion was qualified as "probably." In the logician's own sense of the necessary/probable distinction there cannot be: necessary arguments (assuming for the moment we do not count semantically valid arguments as necessary), formally valid arguments, and arguments expressed in logical words are all co-extensive. Toulmin's only reason for accusing logicians of making a mistake in their regard is because he is using a completely different necessary/probable distinction.

The distinction between *warrant-using* and *warrant-establishing* arguments is more problematic, both because it is not clear what the distinction is, and it is not clear whether formal logicians would make it at all. Does Toulmin mean by a *warrant-establishing* argument one where the warrant is the conclusion or, using Toulmin's terminology, the *claim*? Or does he mean one where the warrant being established does in fact feature as the warrant and the acceptability of the argument is then taken to establish in some kind of retrodictive sense the acceptability of the warrant?

In the only example he gives – 'Jack has three sisters; the first has red hair, the second has red hair, the third has red hair; so all Jack's sisters have red hair' (Toulmin, 1958, p. 126) – the warrant being established does seem to be the claim "All Jack's sisters have red hair". It seems from this that what Toulmin has in mind is an inductive argument, while noting that in cases where the induction is a complete enumeration, the argument is also analytic and formally valid. This appears to be a counter-example to the identification of analytic arguments with warrant-using arguments.

But do logicians make any such identification? I get the feeling that Toulmin has been misled by the fact that logicians sometimes describe arguments as "deductive" on the grounds that they argue from the general

to the particular (which can be seen as the same as "warrant-using") and "inductive" on the grounds that they argue from the general to the particular (which can be seen as the same as "warrant-establishing"). I cannot see any other reason for supposing that logicians make a distinction between warrant-using and warrant-establishing arguments at all — it makes no difference to them how an argument is used. Then, because "deductive" arguments have been identified with arguments that are analytic, formally valid, etc., an argument that is formally valid but warrant-establishing might appear to be a counter-example. But this is only because of an equivocation on the word "deductive". If this is the explanation, Toulmin conflates one way of making the deductive/inductive distinction with another; it is no counter-example for an argument classified as "deductive" on one version of the distinction (e.g., because the conclusion follows necessarily from the premises) should be classified as "inductive" on another version of the distinction.[6] Consequently, it is no counter-example for an argument that is, for example, necessary/formally valid/analytic (which is deductive on one version of the distinction) to be warrant-establishing (which is inductive in the other version of the distinction).

2. Analytically valid arguments

So far, Toulmin's proposed counter-examples have come to nought, foundering on straightforward equivocations between different senses of "necessary" or different senses of "deductive", and his case against the formal logicians hangs by a thread. That thread is the possibility of analytic arguments with probable conclusions. We have already seen that logicians would not describe an argument as probable just because it has a probable conclusion, and that a probable conclusion can follow deductively, and can be detached, just as much as a necessary conclusion can. However, Toulmin's examples do not have this form but are statistical syllogisms whose conclusions cannot be detached. Can there be analytic statistical syllogisms? If this is the case then it might still be a problem for formal

[6] There is a further discussion of the warrant-using/warrant-establishing distinction in Botting (n.d.).

logicians. Hamby (2012) argues that the tests for analyticity do not work and do not define a coherent conception of analytic validity, and if so, it hardly matters whether statistical syllogisms can pass them. I will argue that, although insufficient as stated, the tests can be made to work, and consequently that, since statistical syllogisms can pass these tests, there can be analytic statistical syllogisms, and so analytic arguments are not co-extensive with necessary or with formally valid arguments. They are, however, co-extensive with something that is intelligible within logical theory, namely arguments that we are justified in thinking to be semantically valid. Thus, this counter-example fails, and with it the whole case Toulmin has been building that formal logicians un-justifiedly conflate all the distinctions mentioned into one.

It was hinted above that analytic arguments might be something like semantically valid arguments. We will look at his tests for analyticity and see how far this may be the case.

All arguments, when put into the "Data; Warrant; so, Claim" form will be formally valid, but when put into the "Data; Backing; so, Claim" form, most will not be formally valid. However, some arguments seem be formally valid whichever form is given. He gives as an example (Toulmin, 1958, p. 115):

Anne is one of Jack's sisters	Data
All Jack's sisters have red hair	Warrant
So, Anne has red hair	Claim

is formally valid and trivially so; what makes it analytic is that

Anne is one of Jack's sisters	Data
Each one of Jack's sisters have (has been checked individually to have) red hair	Backing
So, Anne has red hair	Claim

is also formally valid, since Anne is one of the sisters whose hair colour is checked in the backing. Expanding the backing to refer to each of Jack's sisters individually makes the argument into a *petitio principii* — a formally valid, albeit circular, argument.

Hamby (2012, pp. 121-22) denies that the second of these arguments is formally valid. What is in the parenthesis is fundamentally part of the argument, Hamby urges, so the conclusion should be "So, Anne has (has been checked individually to have) red hair." I am not convinced by this: the backing, it seems to me, is the enumeration of the facts of the sisters' having red hair. How we actually establish those facts does not seem relevant — it is a case of what Toulmin (1958, p. 130) calls a comment on the nature of the data, as opposed to an extra bit of data. This can be parenthetically inserted in the backing, but it is not as fundamental as Hamby's objection supposes.

Next comes a problematic passage (Toulmin, 1958, p. 117):

> Even our chosen example, about the colour of Anne's hair, may easily slip out of the analytic into the substantial class. If the backing for our step from datum, 'Anne is Jack's sister', to conclusion, 'Anne has red hair', is just the information that each of Jack's sisters has *in the past* been observed to have red hair, then—one might argue—the argument is a substantial one even as it stands. After all, dyeing is not unknown. So ought we not to rewrite the argument in such a way as to bring out its substantial character openly? On this interpretation the argument will become:
> Datum—Anne is one of Jack's sisters;
> Backing—All Jack's sisters have previously been observed to have red hair;
> Conclusion—So, presumably, Anne now has red hair.
> The warrant relied on, for which the backing is here stated, will be of the form, 'Any sister of Jack's may be taken to have red hair': for the reasons given, this warrant can be regarded as establishing no more than a presumption . . . It seems, then, that I can defend my conclusion about Anne's hair with an unquestionably analytic argument only if at this very moment I have all of Jack's sisters in sight, and so can back my warrant with the assurance that every one of Jack's sisters has red hair at this moment. But, in such a situation, what need is there of an *argument* to establish the colour of Anne's hair? And of what relevance is the other sisters' hair-colour? The thing to do now is use one's eyes, not hunt up a chain of reasoning. If the purpose of an argument is to establish conclusions about which we are not entirely confident by relating them back to other information about which we have greater assurance, it begins to be a little doubtful whether any genuine, practical argument could ever be properly analytic.

There is a major interpretative decision to be made here. The temptation is to see Toulmin as backtracking on his previous statement that the example given was analytic: when he says that it may slip into the substantial class, he may be interpreted as saying that it really *was* substantial as it stood, and to be proposing means of making it genuinely analytic.

I am not convinced that this is the best way of interpreting what he says. The difference between a substantial version and an analytic version of the argument may be small, but it is there, and Toulmin's argument does *not* slip into it. That one might easily slip is not the same as having slipped. *If* the backing involved facts about the past and the claim involved facts about the present, *then* the argument would slip into being substantial.[7] As stated, though, the backing does *not* state facts about the past and *is* analytic. Moreover, the fact that it was at some past time that the backing – and what were facts about the present *then* – were checked, does not at all alter the fact that whenever the backing is checked the conclusion is checked also, and this suffices to make the argument analytic. The problem is not so much that the facts may have changed since one checked them, but that the facts to be checked are facts about the past and the conclusion is a fact about the present. Hamby (2012, pp. 121-22) takes the fact that the checking could be in the past to be a problem; in my view, the time of the checking is a pseudo-problem, an irrelevance, and the checking is always to be understood subjunctively. Toulmin's final statements in the passage seem to be a comment on the circularity exhibited by analytic arguments: if the only way that I know that the backing is true (or that the warrant is correct) is by knowing, in part, that the conclusion is true, then the argument is no use at all in helping me to learn something I did not already know by inference. This is basically the old complaint that the syllogism is circular, a *petitio principii*.

Toulmin proposes two tests for analyticity – the *tautology test* and the *verification test* – both of which seem designed as tests for circularity, whether it is a formal circularity or an epistemological circularity. I hope to show that the tautology test seems to be a test for formal circularity and the *verification test* for epistemological circularity.

[7] It is substantial because the backing and the claim would be of different *logical types*.

The *tautology test* says that "if we string data, backing, and conclusion together to form a single sentence, we end up with an actual tautology" (Toulmin, 1958, p. 115) and "an argument from D to C will be called analytic if and only if the backing for the warrant authorizing it includes, explicitly or implicitly, the information conveyed in the conclusion itself" (Toulmin, 1958, p. 116). Substantial arguments would be rightly ruled out by this test because by definition their data and conclusion are of different logical types, and such a combination can never result in a tautology. An interesting thing to note here is that if there is a tautology then there is no model where the premises are true but the conclusion false and so the argument, by definition, is semantically valid, and conversely whatever is semantically valid will pass the test.

Toulmin seems to be dubious of our capacity to detect tautologies by inspection and so proposes a linguistic test: when "all" is in the major premise, "D, B, or *in other words* C" will be true, because C repeats something in the backing. We might question whether whatever is semantically valid will pass the test as described, since the *tautology test* has "in other words" and not simply "and". I can't see that this makes any difference, but if it does, semantic validity might be wider than analytic validity. But this would be enough to show that logicians can recognize the distinction Toulmin is drawing, even though it does not map directly onto their own formal/semantic distinction. Again, this seems aimed at capturing the *petitio principii* involved in something like "All Xs are Ys; this is an X; therefore, this is a Y" which is formally circular because the conclusion repeats something in the backing, and similarly it is epistemologically circular because in order to establish with certainty[8] that "All Xs are Ys" is true we would have established it for the individual in question. This is arguably even more so for the *verification test*, as we will see.

[8] It is worth noting that the accusation of circularity rests entirely on the questionable assumption that "All Xs are Ys" has to be established: i) with certainty, and; ii) by complete enumeration. If it does not have to be established with certainty, or can be established with certainty by something other than complete enumeration, then the accusation is out of place. Also, if we are not taking "All Xs are Ys" not as a syllogistic premise but as a premise in modern logic that allows it to be vacuously true, there is no circularity in the absence of the other premise, for it is the other premise that guarantees that if the general statement is true it is true non-vacuously.

There is a slight curiosity here that it is worth pointing out. Toulmin says that the conclusion repeats something *in the backing*. If the conclusion repeats something that is not in the backing but is *in the data*, the argument does not qualify as analytic, despite being undoubtedly circular. It is not altogether clear whether Toulmin intends to rule such arguments out from being analytically valid or not, but undoubtedly his tests as they are defined do rule them out. In contrast, where he says (1958, p. 139) that "a valid analytic syllogism cannot in its conclusion tell us anything not already included in the data and warrant-backing" it seems that he wants to count arguments whose conclusion repeats something in the data to be analytic also. We might, then, conceive of wider and narrower interpretations of the tests, depending on whether we want to include the data. I will show later that Hamby (2012) actually assumes the wide interpretation of the *tautology test* but a narrow interpretation of the *verification test*. For the most part, I will follow Hamby in this, not because I am convinced that this is correct, but because I think I can make the points I want to make with this wider conception, and if I can then the same points will follow *a fortiori* for the narrower conception as well.

Apart from the limitation of only applying when there is an "all" in the major premise, Toulmin thinks that the *tautology test* can generate false negatives:

Petersen is a Swede
Scarcely any Swedes are Roman Catholics
So, almost certainly, Petersen is not a Roman Catholic

is a quasi-syllogism and should be judged analytic, but it does not pass the *tautology test*.

Expanding the warrant into its backing, e.g., "The proportion of Roman Catholic Swedes is less than 5%" will not give you a tautology when combined with the data and claim in the *tautology test*. If, instead of "scarcely any" we had "no", we would have a tautology because "Petersen is not a Roman Catholic" would just be repeating something stated in the backing. Saying "Petersen is not a Roman Catholic" adds extra information to the argument as it currently stands. This is so equally, Toulmin (1958, p. 122) says, for "Almost certainly, Petersen is not a Roman Catholic".

It is worth noting that this last follows for Toulmin because he takes "almost certainly" to qualify the claim; if we were to take it as qualifying the relation of the claim to the data, that is to say, as designating a probabilistic relation between the premises and the conclusion (which is how I said earlier the logician would classify an argument as probable), we might question whether adding "Almost certainly, Petersen is not a Roman Catholic" does add extra information, since it is difficult – if all we know about Petersen is that he is a Swede – to see how we are saying any more than that most Swedes are not Roman Catholic when we say that Petersen is almost certainly not a Roman Catholic. Toulmin concedes that if we define "almost certain" in terms of proportion and frequency, it *does* pass the *tautology test*.

He finds this way of talking about probabilities mistaken, and bound to lead to paradox. For instance, "a man can say, with perfect propriety, 'Petersen is a Swede and the proportion of Roman Catholic Swedes is very low, and yet Petersen is almost certainly a Roman Catholic" ... if he knows something about Petersen that places him in the Roman Catholic minority—whereas, if the original statement were a tautology, this new statement would be bound to be a self-contradiction" (Toulmin, 1958, p. 124). What Toulmin seems to be saying is that on his view that it is analytic but not a tautology, it can make sense to deny the conclusion of the original argument should we learn something else about Petersen, e.g., that he is a Roman Catholic. If his opponents say that Petersen is almost certainly a Roman Catholic, on the other hand, then this is contrary to what they said before, and since what they said before was a tautology, to say this must be an outright contradiction. Toulmin is entitled to deny the conclusion, then, on acquiring new information, while his opponents are not.

As far as it goes, this analysis is correct: if I say "P; therefore, almost certainly Q" then I cannot say "P; therefore, almost certainly not Q". I can, however, say, "P; N; therefore, almost certainly not Q" – when N is the new information – without any contradiction. And, in fact, it is precisely because I can do this that I can still say "P; therefore, almost certainly Q" and still say something that I consider true. For someone taking this view it is quite legitimate to say "It is improbable for Petersen to be a Roman Catholic, but nonetheless true" because this is elliptical for saying "It is improbable for Petersen to be a Roman Catholic given that he is a Swede and very

few Swedes are Roman Catholics, but it is nonetheless true". It is precisely for such reasons that proponents of this view argue that modal qualifiers should usually be taken as modifying the relation between the data and the claim, rather than, as Toulmin does, as modifying the claim. Toulmin has many arguments against this view of modal qualifiers and probabilities that cannot be surveyed here. Here, I will limit myself to making the point that Toulmin's argument presupposes his own view of modal qualifiers and so begs the question against his putative opponents, who are saying something perfectly intelligible and non-contradictory according to their own views on probability and modal qualifiers.

The *verification test* is then proposed as an alternative that does not need "all" or "no" to occur in the major premise: an argument is analytic if and only if "checking the backing of the warrant involves *ipso facto* checking the truth or falsity of the conclusion . . . whether a knowledge of the full backing would in fact verify the conclusion or falsify it" (Toulmin 1958, p. 123).[9] It is worth noting again that according to the definition it is the *backing* that is in question; it is quite irrelevant, as far as passing the *verification test* goes, what the *data* is. This test seems to capture the idea of *epistemological circularity* — if the only way of knowing for certain that the major premise of a syllogism is true involves knowing that the conclusion is true, then we have an epistemological circularity but not necessarily a formal circularity. Admittedly, the fact that Toulmin seems to allow that checking the backing could *falsify* the conclusion – allowing arguments with false conclusions to pass the test and be counted as analytically valid – means that passing the test is not quite the same as being epistemologically circular. I will come back to this.

Toulmin extends this idea in two ways. The first way is quite trivial, namely that we do not need to suppose that what we are checking is a general statement. The second way is more interesting and goes beyond what is normally considered circularity, which is that it is intended to apply to statistical generalizations. This allows statistical arguments like that above to be analytic, because in order to establish that less than 5% of Swedes are

[9] Remember that this checking is to be understood subjunctively: were we to check the backing, we would check the conclusion. This is not altered in the slightest by the fact that we may have carried out a checking some time ago and facts may have changed since then.

Roman Catholics we would have to have established for each Swede, and *ipso facto* for Petersen, whether they are Roman Catholic or not.

This being the case, is

Petersen is a Swede
Scarcely any Swedes are Roman Catholics
So, almost certainly, Petersen *is* a Roman Catholic

also analytic, albeit with a false conclusion? It seems to satisfy the test as it has been written here (Cooley 1960; Hamby 2012, p. 126), and we have seen already that having a false conclusion does not itself rule out the argument's being analytically valid. Yet, as Hamby (2012, p. 126) points out, Toulmin cannot intend for such arguments to count as analytic, noting that Toulmin describes this argument as "not just implausible but incomprehensible" and implies that it is not valid at (1958, p. 122) without apparently noticing that it passes the *verification test*.

I will suggest one possible explanation here, though I will give what I think is a better one later: one might suspect that Toulmin finds the argument so implausible that it does not occur to him to ask whether it passes the test, and one of the reasons he finds it so implausible is that he has already judged that it does not pass a third test called the *self-evidence test*, which is to ask: can someone who grasps the data, backing and conclusion still raise questions about its validity? Perhaps it is only arguments that have passed the *self-evidence test* that are submitted to the *verification test*, so that the two tests together are meant to be jointly sufficient. There is little evidence of this being Toulmin's view, though: Toulmin seems to consider the *verification test* as his most reliable test.

Also, one might object that, even in a completed survey, we might not know whether Petersen specifically is a Roman Catholic, because we might have compiled the survey in a way so that we only know the numbers. Even so, we do check whether Petersen is a Roman Catholic, even if we do not know that that is what we are doing. So I think the argument still comes out as analytic; however, it is not obvious to me that – having checked the backing, when it has been compiled in this way – it would be epistemologically circular to infer the conclusion, as it would be if checking the backing told us exactly who was Roman Catholic and who was not. In what follows,

it will be assumed that the survey was completed in such a way as to make the inference in question circular.

Toulmin's probability example is interesting. Although I disagree with how Toulmin uses the modal qualifier, there is an intuitive plausibility in his claim that, using the qualifier the way he uses it, the argument he gives is valid. It is worthwhile to consider it, then, on its own terms. One can imagine him reasoning as follows:

1. Syllogisms like "All Xs are Ys; this is an X; therefore, this is a Y" are epistemologically circular supposing that "All Xs are Ys" is known by complete enumeration.
2. In fact, since it is the complete enumeration that makes the argument circular, the sub-argument "All Xs are Ys; therefore, this is a Y" is also circular.
3. What we have to do, then, is determine whether checking the major premise/backing involves checking the conclusion — this is the *verification test*, and it should be noted that the minor premise/data is irrelevant here.
4. If the rationale for calling this epistemologically circular is that it involves complete enumeration, then any premise which requires complete enumeration in order to be established will form an epistemologically circular argument when the conclusion is one of the items enumerated.
5. Statistical statements about a population such as "n% of Xs are Ys" requires complete enumeration; therefore, if "This X is a Y" is one of these items, "n% of Xs are Ys; so, This X is a Y" is epistemologically circular.
6. Similarly, if "This X is not a Y" is one of these items, "n% of Xs are Ys; so, This X is not a Y" is epistemologically circular.
7. Supposing that we cannot check directly whether the X in question is or is not a Y, but know that it is very likely given a high value for n, we should modify our claim, giving us the argument "n% of Xs are Ys; so, almost certainly, this X is a Y".[10]

[10] One might suspect a fallacy of sweeping generalization or ignoring exceptions here; after all, we do not know that this X is not in the (100 - n%) of Xs that are not Y. I think this

8. Since we are fully justified in making this modally qualified claim, this argument is valid. (If we could see directly that the claim is true, the modal qualifier to use would be "certainly". It would no longer be appropriate to use the qualifier "almost certainly", for this implies a reservation that we do not have).
9. It might be false that this X is a Y. Indeed, we have already seen that its falsity – namely, "This X is not a Y" – may follow in just as circular a fashion as "This X is a Y." Also, if in fact it is false, the argument "n% of Xs are Ys; so, this X is a Y" will not, in fact, be epistemologically circular. But, supposing once again that we cannot check this directly but are making an estimate depending on the value of n, we could not be justified in saying "n% of Xs are Ys; so, almost certainly, this X is not a Y", and although "n% of Xs are Ys; so, this X is a Y" is not epistemologically circular, we are justified in thinking that it is when n is high.
10. It is possible, then, that the conclusion of the argument (minus the qualifier) is false, but we would still call the argument valid because entitled to make the claim once it has been appropriately modally qualified.
11. So, checking the complete backing might in fact verify that this X is not a Y.
12. "Data; Backing; so, Claim" is not formally valid since if it were the conclusion could not be false. Similarly with regards to its being semantically valid.
13. Nevertheless, the argument is *analytically valid*.
14. Therefore, some arguments are analytic yet not necessary but only probable.
15. *Analytic arguments* are those which we are justified in thinking to be epistemologically circular/semantically valid, though qualified to indicate that we cannot be certain.

is wrong: in the absence of any particular reason to think that this X *is* one of this minority, it would only be a fallacy if we were insisting on "This X is a Y" as a certainty. Adding "almost certain" makes it explicit that that is not what we are doing.

So, Cooley and Hamby would be quite right to say that the argument concluding "Almost certainly, this X is not a Y" passes the *verification test*.

It is worth noting that we can claim on similar grounds that the subarguments in (5) and (6) – those which conclude "This X is a Y" and "This X is not a Y" respectively – are semantically valid when their conclusions are true. Is it actually possible for the conclusion of either argument to be false if the premise (viz. the complete enumeration) is true? Certainly, we may reasonably think that it is false. But it cannot actually be false, since it is a repetition of one of the items enumerated. It is only because the enumeration is unexpanded that we can conceive of the conclusion's being false. For the same reason, I think it could be said to pass the *tautology test*. If so, the argument "n% of Xs are Ys; so, this X is not a Y" passes both the *tautology test* and the *verification test*. *Contra* Toulmin, I do not think that this is a case where the *tautology test* fails and the *verification test* works. In fact, when expanded it seems to be not just semantically valid but formally valid. However, if we qualify the conclusion as "almost certainly" and in this way allow there to be false conclusions, Toulmin is right: an argument with a false conclusion cannot pass the *tautology test* but it can pass the *verification test*.

That passing these tests is not sufficient, either individually or together, for an argument to be analytically valid, turns out to be because of a separate issue concerning the qualifiers. What makes "n% of Xs are Ys; so, almost certainly this X is a Y" analytic while "n% of Xs are Ys; so, almost certainly this X is not a Y" not analytic is not the *verification test* alone (since they both pass it) but also the match between the probability and the modal qualification of the claim. We can see this more easily if we re-introduce the warrant, because the claim embedded in the warrant must be modally qualified in the same way. The argument "Petersen is a Swede; Scarcely any Swedes are Roman Catholics; So, almost certainly, Petersen is a Roman Catholic" or "Petersen is a Swede; Scarcely any Swedes are Roman Catholics; So, it is highly improbable that Petersen is not a Roman Catholic" can be seen to be unintelligible by direct inspection of the modal qualifiers. Toulmin takes this for granted, and so wrongly says that an argument is analytic if and only if it passes the *verification test*. An important corollary is that the *verification test* itself does not do much different than answer the model-theoretic question "Is it possible for the premises to be true and

the conclusion false?" It will not answer it in all cases because (construed narrowly) it does not consider the data at all, confining itself entirely to the backing and claim. But it does answer it in a theoretically significant subset of cases, namely those that are accused of being *petitio principii* because of generalizations known by complete enumeration. Toulmin makes an interesting extension to statistical generalizations, and I think he is right. The resemblance to the model-theoretic conception is even more obvious with the *tautology test*, which is practically the same as the model-theoretic question.

Hamby (2012, pp. 126-28) objects further that there are quasi-syllogisms that fail the *verification test* but pass the *tautology test*:

Petersen has a mustache
Every person whom I have met whose name is Petersen is a Swede, and every person whom I have met who has a mustache is a man
So, Petersen is a Swedish man

Does it pass the *tautology test*? From the fact that someone is called "Petersen" I am entitled to conclude that they are a Swede, from the first clause of my backing. From the fact that Petersen has a mustache (the data) and every person I have met with a mustache is a man (the second clause of my backing) I am entitled to conclude that Petersen is a man. Hence, by conjunction, I am entitled to conclude that Petersen is a Swedish man. According to Hamby, the conclusion repeats what was said in the premises, so it does seem to pass the *tautology test*. Obviously, it will not pass the *verification test*. There is a very general scheme for generating such counterexamples: the *verification test* does not consider the data, so a conclusion that repeats something in the data alone or derived from the data alongside the backing will pass the *tautology test* but not the *verification test*; the *verification test* is both wider and narrower than the *tautology test*. But this amounts to every formally valid argument whatever as long as it does not have a redundant premise (Hamby, 2012, pp. 125-28).

There are two things to be said about this. Firstly, Hamby is construing the *tautology test* widely to include the data, since on the narrower construal of the test one cannot say that it is passed because the conclusion repeats what was said in the *premises*. The conclusion does not repeat anything said

in the *backing*, so it does not pass the *tautology test* on the given definition of that test. Also, if we were to construe the *verification test* widely as well, then it would pass both tests. It is only by construing the *tautology test* widely and the *verification test* narrowly that we can get this case.

Let us for the moment assume that this is, in fact, the best way to construe these tests; as I have said, such a view is not without textual support. This brings me to my second point: is this actually a problem? It is a problem for Toulmin's claims about the sufficiency of the *verification test*, but we have already conceded that Toulmin is wrong about this. Is there anything else that need concern us? I don't see that there is. Remember that formally valid arguments are a proper subset of semantically valid arguments, so it does not seem to be the flaw that Hamby takes it to be that all formally valid arguments, or, as he prefers to put it, all arguments with a good warrant, are analytic arguments. Perhaps his worry is that substantial arguments too can have good warrants, so the analytic/substantial distinction would disappear altogether. I do not think this is true: since substantial arguments will by definition have conclusions of a different logical type to their backings, they will not pass the *tautology test* by definition. If, somehow, it does pass the *tautology test*, what moral should we draw from this? Not, it seems to me, that Toulmin's concept of analytic arguments is incoherent, but that his concept of substantial arguments as something distinct from analytic arguments is incoherent: the distinction Toulmin wants to draw between analytic and (valid) substantial arguments does not really exist.

3. Conclusion

I disagree with Toulmin's analysis of modal qualifiers and, by extension, the way he draws the necessary/probable distinction, and his whole discussion of probability. Most fundamentally, I think that Toulmin has utterly confused the question of whether one thing follows validly (however we cash out "validly") from another and the question of what we take to justify the use of a particular modal qualifier. This is in part due to Toulmin's habit of taking the modal qualifier always as modifying the conclusion. These are all issues that will have to be discussed elsewhere.

I also disagree with Toulmin's statement about the sufficiency of the *verification test*. I disagree with his statement that in analytic arguments "Data; Backing; so, Claim" is formally valid — it does not seem to be true of probable arguments,[11] for he explicitly says that the conclusions of these may be false when he says that checking the complete backing may falsify the claim. It is for the same reason that such arguments will fail the *tautology test*.

However, I do not find Toulmin's account to be as incoherent as Hamby among others have claimed and have provided a line of reasoning that seems to justify Toulmin's judgment that probable (in both senses of the word "probable") arguments can be analytically valid, even though I deny that this validity can be established directly by any of the tests on their own. Toulmin's elaboration of the *petitio principii* objection into arguments involving statistical generalizations (because both universal generalizations and statistical generalizations involve complete enumerations) is interesting in its own right and worthy of serious study. Further, because checking the backing is to be understood subjunctively, Hamby's objection that it may have been carried out in the past is a pseudo-problem, and although he is right that certain arguments that Toulmin would not accept as analytically valid pass the *verification test* and, in consequence, the test is not as sufficient as Toulmin says, I have given a plausible explanation of how this is that deflates this objection.

My major concern, then, is not that Toulmin's account of analytic validity is incoherent, but whether it is not explicable in terms of a distinction between semantic validity and formal validity that is well-known to logicians.[12] This is the second strategy that I outlined at the start of the paper.

[11] Admittedly, it is not entirely clear that it is meant to be. It is a claim Toulmin makes with respect to his earlier argument about Jack's sisters, and in that case I think it is true: Hamby is wrong to take what is parenthesized in "Each one of Jack's sisters have (has been checked individually to have) red hair" as part of the content that has to be repeated in the claim in order for the argument to be formally valid. It is not obvious that he is putting the formal validity of "D; B; so, C" forward as a completely general claim about analytic arguments as a whole. I don't see how he can, since he seems to allow that C could be false.

[12] Also thinking Toulmin's account of analytic validity to be incoherent, Bermejo-Luque (2011, p. 93) offers an alternative definition of analytic arguments as arguments whose warrants are analytic truths. This makes analytic validity equivalent to semantic validity, and so not a problem for formal logicians. The rationale is that the inference from so-

This is important because Toulmin accuses formal logicians of conflating the categories of formal validity, analyticity, and necessity. Now, given that Toulmin is operating with a completely different conception of necessity and probability to the logicians, it is no surprise that there can be probable arguments as he defines that term that are formally and/or analytically valid. The question remaining, then, is whether they conflate formal validity and analytic validity or recognize any validity other than the formal. If it is the case that analytic validity as Toulmin defines it is the same as semantic validity, or differs from it only slightly, then Toulmin cannot justifiedly accuse them of neglecting such a distinction and Toulmin's case collapses.

It must be admitted that analytic validity is not the same as semantic validity. However, passing the *tautology test* is the same as semantic validity (when construed widely) or as a theoretically significant proper subset thereof (when construed narrowly), and passing the *verification test* implies that if the conclusion (minus the qualifier) is true, the argument would be semantically valid. It is because Toulmin wants to allow quasi-syllogisms to be analytically valid when the conclusion (minus the qualifier) is *false* that we get the complications; Toulmin's idea is that an appropriately hedged conclusion *can* follow analytically in this case, and I think he is right on this score, but the *verification test* that he proposes to deal with this problem is too weak as Toulmin defines it. That neither of these tests are, in fact, sufficient, is due to the modal qualifications of the warrant and the claim, which have to match. When there is such a match the situation is one where, even when the argument is not circular, whoever puts it forward has good reasons to think that it is and no reason to think it is not, though acknowledging the possibility that it is not by qualifying the claim. I take

mething like ""This apple is green" to "This apple is coloured" is truth-preserving in every possible world and so model-theoretically valid though not proof-theoretically valid. This will always be the case when the premise that needs to be added in order to make it formally valid is an analytic truth, for such truths are, by definition, true in all possible worlds and cannot make a bad inference into a good one — it was good all along. This also follows for arguments like "Peter is older than Paul; Paul is older than Phil; therefore, Peter is older than Phil." The conclusion does seem pre-theoretically to follow logically from the premises, but to make it formally valid we have to add a statement to the effect that the relation *older than* is transitive. Such a statement is arguably an analytic truth. In light of this, logicians would often describe these arguments too as necessary, thereby giving necessary arguments a wider extension than those that are formally valid.

this to be close enough to semantic validity that Toulmin cannot justifiedly claim that logicians do not, or could not, recognize the distinction between formally valid and analytically valid arguments; nor would they find themselves forced to judge those analytic arguments that are not formally valid as invalid. On the contrary, Tarski's proposal of the model-theoretical conception of validity was precisely an attempt to count as valid certain examples where one thing seemed intuitively to follow logically from another even though they were not formally valid but true in virtue of the meanings of the terms used, e.g., "This apple is green; therefore, it is coloured".

Where logicians do 'conflate' distinctions (i.e., formally valid arguments with those expressed in logical words) they are not mistaken in doing so, and where it would be a mistake (i.e., formally valid arguments with analytic arguments) they do not do so. As for necessary and probable arguments, logicians have a completely different understanding of this distinction than Toulmin; it would not be a mistake, on *their* understanding of necessity, to 'conflate' it with formal validity, and they would not conflate Toulmin's understanding of necessity with formal validity or with anything else in these distinctions.

True, I have not said anything in this paper about substantial validity. Obviously, Toulmin would not claim that there are substantially valid arguments that are formally valid and/or expressed in logical words. He does say that there are substantially valid arguments whose conclusions can be stated unequivocally and so given the qualifier "necessarily", but, clearly, such arguments will not be necessary on the logician's own conception of necessary/probable distinction and so not a counter-example. The question whether substantially valid arguments are valid at all, and what their validity-claim amounts to, must be left for another time, however.

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Crítica y normatividad del discurso político[1]

Criticism and Normativity of Political Discourse

Julder Gómez
Universidad Eafit, Medellín, Colombia
jgomezp5@eafit.edu.co

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Resumen: El tema de este artículo es el discurso y la argumentación política. El propósito es esclarecer su función, su normatividad y el tipo de crítica apropiado. Para conseguir estos propósitos, expongo algunas contribuciones de Norman Fairclough e Isabela Fairclough (2013), destaco algunos de sus compromisos teóricos, señalo dos problemas que la aceptación de estos compromisos acarrea y, finalmente, propongo un modo de resolver estos problemas.

Palabras clave: Argumentación política, análisis crítico del discurso político, argumentos prácticos, hechos institucionales.

Abstract: This paper is about political discourse and political argumentation. Its purpose is to offer an understanding of the function and the normativity of political discourse and argumentation and the appropriate criticism. In order to do that, I present Norman and Isabela Fairclough's contributions (2013); I make explicit some of the theoretical commitments that their contributions imply; I point out two problems that the acceptance of these commitments bring forth; and finally I suggest a way of solving these problems.

Keywords: Political argumentation, critical analysis of political discourse, practical arguments, institutional facts.

[1] Este artículo hace parte de los resultados del proyecto de investigación "Variaciones de la categorización de acciones", realizado en la Universidad Eafit durante el año 2016. Una primera versión fue presentada en el coloquio de Retórica y Argumentación, organizada en agosto de 2016 por el Departamento de Humanidades de la Universidad Eafit y el Instituto de Filosofía de la Universidad de Antioquia, Colombia.

1. Introducción

En este artículo me ocupo de tres cuestiones:

¿Cuál es la función de la argumentación política?

¿Tiene sentido sostener que un discurso político (DP) no es razonable aunque gane la adhesión de su auditorio?

¿Cuál es el tipo de crítica y cuál el tipo de premisa en el que fundamentalmente debe enfocarse quien discrepa?

En un libro más o menos reciente, *Political Discourse Analysis* (2013), Norman Fairclough e Isabela Fairclough han desarrollado una propuesta de análisis crítico del discurso político (ACDP) que incluye respuestas a estas cuestiones. Su propuesta de análisis crítico del discurso político (ACDP) implica que la función de la argumentación política es crítica; que un discurso político (DP) puede no ser razonable aunque gane la adhesión de su auditorio; y que la crítica de quien discrepa debe enfocarse fundamentalmente en las premisas instrumentales, en la formulación de cuestiones críticas cuyo propósito es evaluar si la acción política satisface los intereses reales de la gente.

Por mi parte, considero, como también otros lo hacen, que la función de la argumentación política es motivar la toma y el mantenimiento de decisiones políticas; que si un discurso político (DP) gana la adhesión de su auditorio es razonable; y que el tipo de premisas y de críticas en las que debe enfocarse quien discrepa dependen del tipo de desacuerdo que mantenga con el discurso político (DP).

Para justificar mi posición y la propuesta que hago, procederé del siguiente modo: Expondré los conceptos necesarios para comprender las tesis del análisis crítico del discurso político (ACDP); haré énfasis en algunos compromisos de estas tesis; señalaré los problemas que, a mi parecer, genera la aceptación de estas tesis; y, por último, presentaré mi propuesta.

2. Elementos necesarios para comprender las tesis del análisis crítico del discurso político (ACDP)

2.1. El discurso político (DP) es argumentación práctica institucional y el análisis del discurso político es análisis crítico del discurso político (ACDP)

El discurso político (DP) es argumentación práctica.

En su propuesta de análisis crítico del discurso político (ACDP), Norman e Isabela Fairclough parten de una comprensión de la política en la cual la cuestión de la acción, la cuestión de qué hacer, es la cuestión fundamental (Fairclough & Fairclough, 2013, p. 15). Para él y para ella, quienes en esto siguen a Colin Hay (2007), las diversas definiciones de la política comparten la apelación a la elección, a la capacidad para la agencia, a la interacción social y a la deliberación; desde su punto de vista, la necesidad de tomar decisiones y hacer elecciones en contextos de escasez, urgencia e incertidumbre es característica de la política (Fairclough & Fairclough, 2013, pp. 26-27). Así, piensan que en la política se trata de llegar cooperativamente, a través de alguna forma (colectiva) de argumentación (deliberación), a decisiones sobre acciones de interés común; piensan que en la política se trata de dar respuesta a desacuerdos y conflictos públicos (sobre la distribución de bienes sociales escasos); piensan que, por definición, en la política se trata de la resolución pacífica de conflictos.

El DP, por su parte, es concebido como argumentación práctica. A su juicio, la cuestión fundamental de todo DP es la cuestión de qué hacer, de cómo resolver un problema práctico; quien intenta resolverlo es interpelado como agente, en una situación particular; y los argumentos que aduce a favor de la acción que propone son razones para actuar (Fairclough & Fairclough, 2013, pp. 35-36).

2.1.1.1. Las razones para actuar que el agente político puede ofrecer en el DP son de diversas clases y conforman la estructura de los argumentos prácticos. La propuesta de ACDP elaborada por Norman e Isabela Fairclough reconoce cuatro clases de premisas y de conclusiones:

2.1.1.1.1. Premisa normativa: la premisa normativa es la especificación de los valores, de las estimaciones relativas a lo bueno y deseable, o de los requerimientos morales o legales que el agente tiene en cuenta y que son compatibles con sus fines (Fairclough & Fairclough, 2013, p. 42).

2.1.1.1.2. Premisa teleológica: la premisa teleológica es la especificación del estado de cosas futuro y posible que el agente quiere producir con su acción (2013, p. 42).

2.1.1.1.3. Premisa circunstancial: la premisa circunstancial es la especificación de las circunstancias en las que se encuentra el agente, es la especificación de los hechos percibidos como problemáticos, de la situación en la que se presenta el problema práctico (Fairclough & Fairclough, 2013, pp. 42-43).

2.1.1.1.4. Premisa instrumental: la premisa instrumental es la especificación de la conjetura o de la hipótesis según la cual la realización de una cierta acción *A* transformaría la situación descrita por la premisa circunstancial en la situación descrita por la premisa teleológica (2013, p. 43).

2.1.1.1.5 Conclusión: La conclusión de los razonamiento prácticos es la resolución del problema práctico por parte del agente (2013, p. 40). Ésta puede ser de diversos tipos. Siguiendo en esto a Robert Audi (2005), Norman e Isabela Fairclough distinguen cuatro tipos de conclusiones de un argumento práctico, a saber: el juicio práctico según el cual el agente debe realizar una cierta acción *A*, la intención de realizarla, la decisión de realizarla y la realización misma de la acción (2013, p. 40).

2.1.2. El DP es institucional porque los contextos políticos son contextos institucionales, son contextos que le posibilitan a los actores ejercer su agencia, que les da poder para actuar sobre asuntos de interés común (2013, p. 18). Ejemplos obvios de estos contextos son el congreso, la asamblea, el consejo, los comunicados de los partidos políticos o de organizaciones espontáneas que expresan propuestas acerca de situaciones políticas coyunturales, etc. En este punto Norman e Isabela Fairclough articulan su propuesta de ACDP con la teoría searleana de los hechos institucionales

(2013, p. 47). Para la problemática que me interesa en este texto, el aspecto más importante de esta articulación consiste en que esta teoría de los hechos institucionales propone que para la existencia de una institución es indispensable que la gente sobre la cual la institución tiene poder piense que la institución existe, que la reconozca y, asimismo, que las instituciones proveen razones independientes del deseo para actuar con las que todos los agentes se comprometen tan pronto como participan del contexto de la acción institucional (Searle, 2010), es decir, que la institución proporciona información que puede usarse como elemento impletivo, para llenar, las premisas de los argumentos prácticos acerca de la acción institucional. Así, para que un congresista pueda participar en las sesiones del congreso es necesario que sea reconocido por su comunidad como congresista y, por el hecho mismo de participar en estas sesiones, él se compromete, con independencia de su deseo, con los valores, fines y medios de la democracia de su comunidad política.

2.1.3. Ahora bien, el tipo de análisis del discurso político propuesto por Norman e Isabela Fairclough es crítico, es ACDP, y lo es en dos sentidos:

2.1.3.1. En su propuesta, la argumentación cumple una función crítica. Siguiendo en este punto a David Miller (2006), Norman e Isabela Fairclough consideran que en una situación típica, el agente se enfrenta a diversos cursos de acción posibles y la evidencia disponible no indica que ninguno de ellos sea claramente erróneo; consideran que lo que en esa situación puede hacer racionalmente el agente es someter a crítica las diversas alternativas, a fin de eliminar las peores, utilizando para ello todo el conocimiento empírico y científico disponible (2013, p. 49). En este primer sentido, en el sentido del racionalismo crítico, la propuesta de análisis del discurso político de Norman e Isabela Fairclough es una propuesta de ACDP.

2.1.3.2. La propuesta es crítica también en un segundo sentido, a saber: No sólo proporciona, mediante el estudio de las razones para actuar expresadas en el DP, explicaciones agentivas de la acción política; además de ello contribuye con explicaciones críticas a las ciencias sociales críticas, es decir, procura explicar cómo pueden realizarse acciones políticas contrarias a los intereses reales de la comunidad política (2013, pp. 78-81). En opinión de

Norman e Isabela Fairclough, donde hay relaciones asimétricas de poder, las creencias y las preocupaciones de los grupos sociales dominantes, que corresponden a sus propios intereses, pueden llegar a ser aceptados por otros grupos sociales, a cuyos intereses no corresponden, como parte del interés general (2013, p. 100). Esto puede explicarse, al menos parcialmente, mediante el DP y sus argumentos, en la medida en que mediante ellos se puede persuadir a la gente de que hace parte de su interés o del interés general algo que, en realidad, sólo hace parte del interés de algún o algunos grupos sociales dominantes. En esto, la propuesta de ACDP de Norman e Isabela Fairclough es coherente con el enfoque tridimensional del poder adelantado por Steven Lukes (2005). Según este enfoque, el poder puede ser ejercido sobre otros influenciando, dándole forma a, determinando sus deseos (Lukes, 2005, p. 27). En la medida en que ello puede hacerse mediante el discurso, éste puede ser ideológico y una de las tareas del ACDP es explicar cómo consigue el DP que la gente acepte acciones políticas que no están en sus intereses reales sino sólo en sus intereses subjetivos, en los intereses que el DP consigue que la gente acepte como propios aunque no lo son (Fairclough & Fairclough, 2013, p. 113; Lukes, 2005, pp. 27-29). También en este segundo sentido, en el sentido de las ciencias sociales críticas, el análisis del discurso político es ACDP.

3. Compromisos: falibilismo y universalismo del ACDP

3.1. La asignación de una función crítica a la argumentación se sustenta en una postura falibilista en epistemología. Cuando Norman e Isabela Fairclough señalan que la función de la argumentación es la crítica (Fairclough & Fairclough, 2013, p. 49), niegan que lo sea la justificación y apelan a las exposiciones del racionalismo crítico realizadas por David Miller. En una de estas exposiciones se presenta del siguiente modo la asignación de una función crítica a la argumentación: A la pregunta '¿de qué manera los argumentos contribuyen a la investigación de la verdad?' se ha contestado que lo hacen (a) ayudando a persuadir a la gente, (b) ayudando a extender nuestro conocimiento, (c) ayudando a justificar o a probar las proposiciones, y, por último, (d) ayudando a eliminar algunas proposiciones; David Miller niega que la función de la argumentación sea persuadir porque estima que

ello favorecería el dogmatismo, niega que sea extender el conocimiento porque considera que los argumentos deductivamente válidos no añaden información y que los que no lo son simplemente constituyen conjeturas o adivinanzas pero no argumentos; y niega que sea justificar una proposición porque piensa que los argumentos deductivamente válidos son circulares y los no válidos no justifican la conclusión (Miller, 2006, pp. 65-76); postula, por último, que la función de la argumentación es descartar algunas proposiciones porque a su entender los argumentos ayudan a determinar qué implican nuestras hipótesis, a hacer explícitas sus consecuencias y, de esta manera, facilitan el que contrastemos esas consecuencias o bien con otras hipótesis o bien con la experiencia. Así, el racionalismo crítico es una extensión, desde las ciencias empíricas, a todas las áreas del pensamiento, de la solución popperiana al problema humeano de la inducción (Miller, 2006, p. 76), es decir, una extensión del falibilismo, según el cual si bien no podemos saber cuándo es verdadera una proposición sí podemos saber cuándo es falsa.

3.2. La postulación de la existencia de intereses reales es coherente con una postura universalista a propósito de los valores y los fines que guían la acción, como la de los derechos humanos universales. Norman e Isabela Fairclough reconocen que algunas veces la gente difiere razonablemente acerca de qué hacer en virtud de que le asigna diferentes niveles de importancia a fines y valores, reconocen también que estas situaciones son típicas en el ámbito de la política (2013, p. 60); consideran que el mejor modo de evaluar la argumentación política en estos casos consiste en examinar las consecuencias, sobre otros fines y valores políticos, de la acción política realizada, recomendada o decidida; consideran que, para realizar esta evaluación, el ACDP requiere una fundamentación normativa y proponen fundamentar el ACDP en un conjunto de valores muy cercanos a los derechos humanos universales y, más precisamente, a una lista de las capacidades humanas que defina el concepto de florecimiento y bienestar del ser humano. Así, la fundamentación normativa del ACDP propuesto por Fairclough y Fairclough no es relativista en el sentido que no piensa que deba reconocerse cualquier valor que una comunidad sostenga, en particular, no piensa que deba reconocerse ningún valor que vaya en detrimento de los derechos humanos universales (2013, pp. 60-61). Su postura implica, por tanto, que

una acción institucional puede no ser razonable aunque la comunidad esté interesada en su realización por las razones que el agente político expone y que esto puede ocurrir o bien cuando dicha acción es contraria a los intereses reales de esa comunidad o bien cuando esa acción es contraria a los derechos humanos universales.

3.3. En virtud de esta postura universalista a propósito de lo que puede o no aparecer en la premisa normativa, el falibilismo a propósito de la premisa instrumental se torna dominante en la descripción y evaluación de la argumentación política en el ACDP. En efecto, si todos los agentes deben respetar los mismos valores, deben compartir las premisas normativas, entonces todos deben estar de acuerdo en cuáles situaciones son problemáticas, deben compartir las premisas circunstanciales, y en cuáles fines deben buscarse, en las premisas teleológicas. Por tanto, las cuestiones con las cuales puede alguien discrepar son principalmente empíricas, atinentes a la premisa instrumental y a la conclusión, son cuestiones epistémicas como ¿Es o no verdad que la realización de una cierta acción *A* produciría una situación pretendida *F*? y ¿podría ser que la realización de una cierta acción *A* impidiera la consecución de la situación pretendida *F*? No se trata de que la propuesta del ACDP elaborada por Norman e Isabela Fairclough sólo considere estas críticas como posibles; de hecho, procediendo a partir de una propuesta de Douglas Walton (2007), además de las cuestiones críticas que interrogan las premisas, consideran también otros dos tipos de críticas: las refutaciones que muestran la falsedad de las premisas y las confutaciones que argumentan contra las conclusiones de un DP dado; y, además de las cuestiones críticas que interrogan las premisas instrumentales, consideran también cuestiones críticas que interrogan las otras clases de premisas (Fairclough & Fairclough, 2013, pp. 62-67). No se trata, pues, de que su propuesta desconozca que quien discrepa puede concentrarse en otros tipos de críticas y de premisas. Se trata de que en virtud de su postura universalista acerca de los valores, expresados en las premisas normativas, y los fines, expresados en las premisas teleológicas, estos otros tipos de críticas y de premisas pierden relevancia. En efecto, como todo DP debe ser coherente con los intereses reales y los derechos humanos universales, lo único que realmente puede motivar desacuerdos razonables es lo expresado en las premisas instrumentales y como, por otra parte, en virtud del

carácter conjetural, empírico y contrastable de esta premisa, en coherencia con el falibilismo epistemológico, su mejor modo de evaluación es la interrogación crítica, la refutación de las demás premisas y la confutación de la conclusión a partir de otras premisas normativas y teleológicas pierden relevancia.

4. Problemas: Universalismo normativo y teleológico versus institucionalidad. Desacuerdos instrumentales y desacuerdos normativos o teleológicos

4.1. El universalismo normativo no es coherente con el carácter institucional del DP. Por una parte, le estoy llamando aquí "universalismo normativo" a la pretensión, sostenida por Norman e Isabela Fairclough (2013, pp. 60-61), que toda acción política y toda razón para toda acción política es criticable cuando es contraria a los intereses reales de la gente o a una lista semejante a la de los derechos humanos, de manera invariable con respecto a las comunidades, sea que éstas reconozcan o no esos postulados normativos. Por otra parte, le estoy llamando "carácter institucional del DP" a la pretensión que el poder político depende de su reconocimiento. Entre estas dos pretensiones hay una relación de incompatibilidad: según el universalismo normativo, los DP son criticables con independencia del reconocimiento de la gente y, según el carácter institucional del DP, los DP no son criticables con independencia del reconocimiento.

Por una parte, al distinguir entre intereses subjetivos e intereses reales, lo mismo que al postular los derechos humanos como piedra de toque para la crítica de cualquier DP, el universalismo normativo adopta como criterio para la crítica del DP una concepción antropológica particular (Gray, 1977), a la cual apela con independencia de si la comunidad política está o no de acuerdo con ella. La afirmación según la cual hay intereses reales no subjetivos implica que hay cosas buenas para la gente que la gente no sabe que son buenas para ella, que la gente no quiere, que pueden ser contrarias a las que la gente quiere y juzga como buenas. Un DP en el que se promueve una acción contraria a los intereses reales, a partir de valores contrarios a ellos, es criticable desde este punto de vista, aunque promueva una acción que los miembros de la comunidad política preferirían que se realizara, aunque los

valores con los que se promueve sean los valores de la comunidad política. La idea que los intereses reales son semejantes a los protegidos por la declaración universal de los derechos humanos precisa el tipo de concepción antropológica a la que apela el ACDP para criticar los DP. Sin embargo, el punto en el que quiero hacer énfasis no se refiere a cuál sea esa concepción antropológica sino a que el criterio de la crítica no es el reconocimiento de la comunidad política, es una concepción del hombre y de lo bueno.

Por otra parte, la distinción entre hechos brutos y hechos institucionales supone una distinción entre hechos que pueden existir sin estados intencionales y hechos que sólo existen si hay estados intencionales (Searle, 1997). Con la expresión "estados intencionales" me refiero a la creencia, el deseo, el reconocimiento y demás estados mentales que siempre tienen un contenido, o sea, algo que es creído, algo que es deseado, algo que es reconocido, etc. Los hechos brutos son aquellos para cuya definición, comprensión y explicación es prescindible la alusión a estados intencionales, como el hecho que el agua sea un compuesto de dos átomos de hidrógeno y uno de oxígeno. Los hechos intencionales son aquellos para cuya definición es imprescindible la alusión a estados intencionales, como el hecho que cuando tengo sed deseo tomar agua.

Los hechos intencionales pueden ser descritos sin nombrar a quien experimenta los estados intencionales correspondientes. Así, por ejemplo, en lugar de decir que cuando tengo sed deseo tomar agua puede decir que tomar agua es deseable para quien tiene sed. Esto genera un problema teórico cuando, además de prescindir de la alusión a quien experimenta el estado intencional, se afirma que tomar agua es deseable para quien tiene sed aunque esa persona no se dé cuenta de ello, aunque no lo desee. El problema de afirmaciones como esta es que implican una contradicción porque ser deseable es una condición intencional, es ser un objeto posible del deseo de alguien. Esto mismo ocurre con el concepto de interés: un interés es un contenido intencional. Por ejemplo, yo estoy interesado en algunos libros, en algunas personas, en algunos viajes, etc.; pero puedo expresarlo sin aludir a nadie, puedo decir que hay libros, personas y viajes interesantes. La contradicción surge cuando además afirmo que hay intereses que nadie tiene o que algo es interesante para alguien aunque no le interese, que algo es su interés real aunque tenga otros intereses aparentes o subjetivos, esto es contradictorio porque ser un interés es una descripción intencional.

La distinción entre el poder físico y el poder institucional es una distinción entre el poder que requiere y el que no requiere estados intencionales o, más específicamente, entre el poder que requiere y el que no requiere reconocimiento. El poder físico es el que tiene un agente para realizar una acción en virtud de las características naturales de su cuerpo y de los cuerpos sobre los que puede actuar causalmente; el poder institucional es el que tiene un agente para realizar una acción en virtud de que los miembros de su comunidad cooperan con él porque lo reconocen como, tienen de él una representación declarativa como, un agente que tiene por función la realización de esa acción. Por ello, al afirmar que el DP es institucional se afirma que para ser el emisor de un discurso político no bastan las capacidades fisiológicas y cognitivas sino que es indispensable ser reconocido por la comunidad como vocero, funcionario, delegado, etc.; para que la decisión a favor de la cual se argumenta en el DP sea válida es necesario que sea conforme a los estados intencionales de los miembros de la comunidad política.

Ahora bien, el ACDP propuesto por Norman e Isabela Fairclough comprende el DP como hecho institucional y, en consecuencia, dependiente de los estados intencionales de los miembros de la comunidad política pero, al mismo tiempo, propone evaluarlo desde el punto de vista de los intereses reales y, por tanto, con independencia de los estados intencionales de la comunidad política. El resultado de ello es que los presupuestos de la descripción del DP son incompatibles con los presupuestos de su crítica, pues la descripción institucional del DP lo hace dependiente del reconocimiento de la comunidad política mientras que el tipo de crítica propuesto exige de él que sea válido según unos estándares normativos independientes de la comunidad política.

4.1.1. Como la incompatibilidad me parece más bien evidente, ahora diré por qué, pese a Searle (2010, pp. 174-198), creo que no se puede resolver afirmando que 'nosotros reconocemos que todos los seres humanos tienen derecho a satisfacer tales y cuales intereses.' Esta afirmación no resuelve la contradicción cuando el grupo de personas designada por el 'nosotros' no coincide con el grupo de personas designada por el 'todos los seres humanos'. La razón por la cual no se resuelve la contradicción de este modo consiste en que el poder institucional es correlativo a su reconocimiento,

los límites de éste son inmediatamente límites de aquél; estos límites no tienen sólo el sentido de la incapacidad para reconocer algo sino también el sentido de la renuencia o del desacuerdo. Esto puede ilustrarse bien desarrollando el ejemplo searleano, diseñado para mostrar la diferencia entre hechos brutos e institucionales, de la línea de piedras que constituye una frontera: Searle imagina un muro de piedra que divide el territorio de dos o más comunidades; en principio, el muro es suficientemente alto y grueso como para impedir el paso y, por esa razón, constituye una barrera física; con el paso del tiempo el muro se derruye hasta quedar convertido en una línea de piedras que por sí misma no impide el paso pero que sigue constituyendo una frontera porque es vista como tal (Searle, 2007). Ahora bien, ¿hasta dónde llega esta frontera institucional? ¿Dónde termina? Sugiero que la respuesta correcta es que llega hasta donde llega la gente que la ve como una frontera, hasta donde comenzamos a encontrar gente que la ve como una línea de piedras y nada más. Esto puede ocurrir por ignorancia, como sería el caso si una comunidad no supiera que otros pusieron esas piedras con la intención de asignarle la función de delimitar su territorio, o por desacuerdo, como ocurriría si otros saben qué función le fue asignada a las piedras pero no están de acuerdo con el límite que intentan imponer y, por tanto, no las reconocen como una frontera; cualquiera de estos dos casos se puede constatar con el paso del tiempo, cuando cambiamos de comunidad histórica, o del espacio, cuando cambiamos de comunidad geográfica. Asimismo, aunque nosotros podemos declarar que todos los hombres tienen los derechos que nosotros especificamos como inalienables a un ser humano, estos derechos, estos poderes institucionales, llegan hasta donde llegamos nosotros, se acaban allí donde, por desconocimiento o por desacuerdo, dejan de ser reconocidos; y allí donde esto ocurre no pueden ya ser empleados para la crítica del DP sin contradecir con ello el carácter institucional del mismo.

4.1.2. Para ser coherente con el carácter institucional del DP, en el seno de una democracia, la crítica tienen que partir del reconocimiento de la validez de los argumentos del agente político por parte de su comunidad. Ésta, en efecto, le confiere a aquél el poder que tiene para que, de acuerdo con sus valores, realice algunos de los fines o resuelva algunos de los problemas de su comunidad, mediante la realización de acciones supuestamente apro-

piadas para ello. Si el poder institucional del agente político se concibe así, entonces resulta que los contenidos de las premisas normativas, teleológicas y circunstanciales están determinados por la comunidad política, por lo que, hablando en general de toda argumentación, Perelman y Olbrechts-Tyteca (1989) llamaban objetos de acuerdo del auditorio, pues el agente político se ve compelido a argumentar a partir de los valores y los fines de la comunidad que le ha conferido su poder. Desde este punto de vista, un DP es criticable cuando es contrario a los intereses de la comunidad que le ha conferido poder al agente político para que represente sus intereses, en la medida en que un tal DP es abusivo. El abuso consiste en que el agente político tiene poder institucional para hablar y actuar institucionalmente porque una comunidad se lo confiere para que represente sus intereses pero él hace lo contrario. En cambio, un DP que favorece los intereses para el fomento de los cuales al agente político se le ha conferido poder no es criticable en este sentido. Por tanto, un DP no puede ser criticado con independencia de los valores e intereses de la comunidad que confiere poder institucional. Esta es la razón por la cual creo que el universalismo normativo es inadecuado para fundamentar la evaluación de las premisas normativas en el ACDP; para ser coherente con el carácter institucional del DP, el único fundamento de estas evaluaciones es el conjunto de valores, normas e intereses de la comunidad. Y, por esta razón, me parece que si un DP, entendido como argumentación práctica institucional, consigue la adhesión de su auditorio, entonces, es razonable.

4.2. Otro problema consiste en que la función crítica no es suficiente para la comprensión de todos los DP. Según he dicho, el ACDP le asigna una función crítica a la argumentación porque adopta una postura falibilista a propósito del conocimiento. Si uno supone que todos los desacuerdos políticos razonables, o que la mayoría de ellos, gira en torno a la premisa instrumental, entonces, el falibilismo y la función crítica de la argumentación le pueden parecer suficientes para la comprensión del DP. Uno puede suponer eso si adopta una postura universalista en torno a las premisas normativas. No obstante, he argüido que el universalismo normativo es incompatible con el carácter institucional del DP. Por ello, no tenemos argumentos para suponer que todos los desacuerdos políticos razonables giran en torno a las premisas instrumentales; en consecuencia, no tenemos razones para asu-

mir que el falibilismo y la función crítica de la argumentación sean suficientes para comprender el DP. De hecho, muchas discusiones políticas giran en torno a desacuerdos normativos y teleológicos. Para su comprensión no son suficientes el falibilismo y la función crítica de la argumentación porque las cuestiones normativas y teleológicas del DP no son cuestiones de conocimiento, no son desacuerdos entre compromisos veritativos de actos de habla representativos. Así, pues, la función crítica de la argumentación no es suficiente para la comprensión de todos los DP. En consecuencia, tampoco el único tipo de crítica apropiada de quien discrepa es siempre la formulación de cuestiones que interrogan los efectos de las acciones, pues, como queda dicho, la discrepancia no siempre es instrumental.

En efecto, si se libera el ACDP de su compromiso con el universalismo normativo, se pueden reconocer desacuerdos acerca de todos los tipos de premisas. Esto no significa sólo que resultan relevantes las preguntas críticas que interrogan la acpetabilidad de los valores y fines del DP por parte de la comunidad política; esto significa algo más: a diferencia de las premisas instrumentales, las premisas normativa y teleológica no son simplemente verdaderas o falsas; las normas son hechos institucionales pero requieren interpretación, algunos valores políticos son ampliamente aceptados pero en una situación particular su observancia puede reñir con la de otros valores no menos aceptados, los fines o situaciones posibles presentadas como fines pueden ser deseables para muchos pero más costosos para algunos que para otros; debido a que los desacuerdos normativos y teleológicos no giran en torno a la verdad o aceptabilidad de un contenido proposicional sino a las preferencias, a las jerarquías de valores o normas, a las interpretaciones de las mismas, etc., debido, en fin, a que no son desacuerdos epistémicos, las críticas apropiadas pueden ser refutaciones de las premisas del DP y también confutaciones de sus conclusiones. Por supuesto que no es tarea del analista de la argumentación política realizar este tipo de crítica pero, como quiera que el DP es institucional, sí es tarea suya confrontar los DP que se oponen entre sí en la comunidad en la que se producen y constatar si sus premisas no han sido refutadas o sus conclusiones confutadas en otros DP; cuando ese sea el caso y el agente del DP pretenda que no lo es resultará claro que su DP es criticable por esa inconsistencia; pero para dar cuenta de estos tipos de desacuerdos entre diversos DP no es suficiente

un análisis que suponga que la única función de la argumentación es crítica, que su única función es descartar errores concernientes a los resultados probables de los cursos de acción alternativos, sino que hace falta una concepción de la argumentación práctica más amplia, una en la que ésta se entienda como una manera de motivar y mantener decisiones políticas.

5. Propuesta: Un modo en que podrían resolverse los problemas señalados

En este apartado quiero proponer un modo en que podrían resolverse los problemas señalados. Éste consiste en enriquecer el ACDP acentuando la perspectiva retórica, tanto en lo atinente a la función de la argumentación, motivar una decisión, cuanto en lo concerniente a la crítica del DP, sustituyendo la postulación de intereses reales por el estudio de los intereses institucionales de la comunidad política, o sea, del auditorio del DP.

5.1. El problema de la función de la argumentación política se puede resolver acentuando la perspectiva retórica

Este problema consiste en que al asignarle a la argumentación política la función de descartar críticamente los peores cursos de acción disponibles para resolver un problema político, se dejan por fuera los DP que no suponen sólo un desacuerdo acerca de qué acciones modificarían una situación problemática sino que también suponen desacuerdos acerca de cómo interpretar las normas, qué valores tener en cuenta, a cuáles darle más importancia, en qué consiste el carácter problemático de la situación y qué es deseable. En otras palabras, el problema de la asignación de una función crítica a la argumentación política consiste en que sólo algunos DP tienen esta función, a saber, los que suponen desacuerdos instrumentales; pero no todos los DP tienen esta función, no la tienen los que suponen desacuerdos en torno a los restantes tipos de premisas.

¿Qué función tienen todos los DP, todos los argumentos políticos? Para contestar esta pregunta es mejor pensar en el argumento tomado como un todo que pensar en los tipos de premisas tomados individualmente. Una respuesta que el ACDP de Norman Fairclough e Isabela Fairclough puede acep-

tar, porque siguiendo a Aristóteles clasifican el DP como discurso deliberativo, es la que el estagirita sugiere en la Retórica (1990, p. 1358 b-1358 b 20), a saber, que los argumentos del DP tienen por función influir en la decisión que el auditorio debe tomar acerca de la realización de una acción futura.

Asignándole a la argumentación política la función de motivar racionalmente la toma de decisiones por parte de una comunidad política se resuelve el problema. En efecto, esta función es común a todos los DP, con independencia del tipo de desacuerdos que supongan. Cuando el desacuerdo es instrumental la función de la argumentación política es descartar los peores cursos de acción para motivar al auditorio a que decida a favor del curso de acción que mejor contesta a las cuestiones críticas relativas a los efectos de su implementación. En estos casos las críticas apropiadas de quien discrepa son cuestiones acerca de la necesidad, la suficiencia y el eventual carácter contraproducente de la realización de la acción desde el punto de vista del fin buscado. Cuando, por otra parte, el desacuerdo es normativo o teleológico, la función del DP es conseguir que la comunidad le dé más importancia a ciertos valores, a ciertas normas, a ciertos aspectos de la situación fáctica o del texto normativo, a fin de que se decida por un curso de acción determinado. En estos casos las críticas apropiadas son refutaciones en las cuales se muestra que las premisas de un DP dado no señalan lo más importante para todos o confutaciones en las cuales se pretende que esa acción no debe ser realizada por razones que el DP en cuestión no ha tenido en cuenta. En ambos casos, tanto cuando el desacuerdo es instrumental cuanto cuando es normativo o teleológico, el fin principal es el mismo: motivar racionalmente la toma de una decisión política.

5.2. El problema de la postulación de intereses reales como punto de partida para la evaluación crítica del DP consiste en que es incoherente con el carácter institucional del DP. También este problema se puede resolver acentuando la perspectiva retórica de la argumentación porque su énfasis en el auditorio es coherente con el énfasis institucional en el reconocimiento de la comunidad política. Para evaluar un DP se pueden estudiar los valores, las normas, los propósitos y las descripciones de las situaciones problemáticas que los miembros de la comunidad política, o del auditorio, compar-

ten. Entre ellos pueden hallarse los propósitos o intereses que la comunidad le asigna a las instituciones sociales y políticas. Como la realización de estos propósitos o intereses institucionales es, presumiblemente, la función para la cual se le confiere poder institucional al agente político, si su DP, ya en alguna de sus premisas o ya en la decisión que favorecen, es contraria a ellos ese DP es criticable como abusivo, en el sentido antes señalado.

5.2.1. Esta propuesta puede suscitar la siguiente inquietud: Un DP no es criticable cuando favorece decisiones que la comunidad política está interesada en mantener o en adoptar y cuando, además, lo hace a partir de premisas normativas, teleológicas, circunstanciales e instrumentales aceptadas por la comunidad; según esto, si se supone que las premisas de la mayoría de los argumentos empleados por el nacional socialismo eran aceptados por la comunidad alemana de la época y que también lo eran las decisiones, se sigue que ese DP no es criticable; la inquietud consiste en que, sin embargo, nos parece que el DP del nacional socialismo es inaceptable, es criticable. Considero que esta inquietud es legítima y que no constituye una objeción a la propuesta presentada, aunque demanda alguna aclaración.

El concepto clave en esta inquietud es el concepto de crítica. En la propuesta de Fairclough y Fairclough, hacer la crítica de un DP es explicar, a partir del discurso, cómo es posible que se realicen acciones políticas contrarias a los intereses reales de la comunidad política; de este sentido he dicho que no es coherente con el carácter institucional del DP. En la propuesta que he presentado, hacer la crítica de un DP es determinar si un DP es abusivo, o sea, si es coherente con sus condiciones de posibilidad, con el conjunto de valores, fines y conocimientos de quienes confieren poder al agente político para actuar; en este sentido, suponiendo que la comunidad alemana de la época estuviera de acuerdo con las decisiones nazis, el DP del nacional socialismo no es criticable. No obstante, usualmente decimos también que un DP es criticable cuando no estamos de acuerdo con él, cuando no aceptamos sus premisas, cuando no compartimos sus valores, sus descripciones valorativas de las situaciones fácticas, los fines que de ellas se desprenden, etc., y en este sentido el DP nazi es evidentemente criticable (Rorty & Habermas, 2013).

6. Conclusión

En suma, en este artículo propongo que la función de la argumentación política es motivar racionalmente la adopción o el mantenimiento de decisiones políticas; que si un argumento es persuasivo, entonces, es razonable, o sea, que una acción no puede ser contraria a los intereses de una comunidad si ésta está interesada en su realización; y que la crítica apropiada de quien discrepa depende del tipo de premisa con la cual está en desacuerdo en un DP dado.

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Classifications of Arguments by Analogy Part I. A comprehensive review of proposals for classifying arguments by analogy

Clasificaciones de los argumentos por analogía, Parte I. Una reseña comprehensiva de las propuestas para clasificar los argumentos por analogía

André Juthe
Amsterdam University, Amsterdam, The Netherlands
andre.juthe@gmail.com

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Abstract: This paper, composing of two parts, is an attempt to systematically review proposals by authors for classifying arguments by analogy. A closer to 700 documents (journals, books, etc.) have been read and the aim is to provide a comprehensive review in order to give the reader a clear overview of various subdivisions and classifications of analogical arguments made by various theorists. The review should be beneficial for any scientific discipline that employs analogical argument in some way or other. The second part follows continuously and both should be read as one unit in order to fully grasp the content.

Keywords: Argument by analogy, analogical arguments, subtypes, division, classification, taxonomy.

Resumen: Este trabajo, compuesto por dos partes, es un intento de reseñar sistemáticamente las propuestas de autores por clasificar los argumentos por analogía. Cerca de 700 documentos (revistas, libros, etc.) han sido leídos y el objetivo es proveer una reseña comprehensiva para dar al lector un claro panorama de las distintas subdivisiones y clasificaciones de los argumentos por analogía hechas por distintos teóricos. Esta reseña debiera ser beneficiosa para cualquier disciplina cientíifica que emplea argumentos analógicos de una u otra forma. La segunda parte continúa este trabajo y ambas debieran ser leídas como una unidad para entender el contenido.

Palabras clave: Argumento por analogía, argumentos analógicos, subtipos, división, clasificación, taxonomía.

1. Introduction

There exists not only a large body of accounts of analogical argumentation but also a large body of suggestions of subtypes of analogical argumentation. Hitherto there has been no attempt to provide a comprehensive overview of the various proposals of the subtypes and the criteria for distinguishing them. This work is an attempt to remedy that lack. The aim of this paper, which consists of two consecutive parts, is to provide a comprehensive review of various author's divisions of various subtypes of what is called comparative or analogical arguments. It aims to systematically review proposals by authors for classifying or making distinctions between subtypes of arguments by analogy. The primary goal in this paper not to provide the *correct* classification or provide a *true* taxonomy, but rather to map, catalog, and provide a comprehensive systematic overview of various proposals of distinctions and classifications of analogical arguments made by various theorists. My own classification well be discussed to some extent in part II section [2.3.2] and further clarified as the sections follow one another.

1.1. Aim of the Study

The aim of these papers is to provide a comprehensive overview of the various criteria and terminology used by various theorists to distinguishes subtypes of analogical arguments. The research question addressed is: *Which types of argumentation by analogy have been distinguished in the literature?*

The subquestions are:

(1a) What various types are being distinguished and by what author?
(1b) By what criteria are they distinguished?

In order to accomplish the aim and to answer the research question, a qualitative content analysis with inductive meaning categorization has been performed on a large quantity of texts consisting of almost 700 journals and books. The result is commented on as well as summarized in tables. The aim of the chapter is to provide an *overview,* not a *review;* it aims to

systematically map various authors' proposals for distinguishing and classifying subtypes of arguments by analogy and the labels and terminology therewith, not to provide a systematic classification. The chapter contains an exploratory mapping of classifications made by various authors. I attempt to interpret and clarify what subtypes of analogical arguments have been suggested or used in the literature, what parameters have been used as criteria by various authors for making the subtypes and what terms have been used to label the subtypes. My work aims to help the reader by providing an overview of the terminology and the criteria that have been used by various authors. I should emphasize that this study does not claim to be final in any sense, but rather is a tentative map of the territory which provides a foundation for further research.

1.2. Method

1.2.1. Inductive Qualitative Content Analysis

The method employed in this study is *inductive qualitative content analysis*. Qualitative content analysis is a research method that has come widely in use in various fields. It is one of many research methods used to analyze text data (Cavanagh, 1997). Other methods include "ethnography", "grounded theory", "phenomenology" and "historical research". Qualitative content analysis focuses on the typical features of the text as communication with attention to the contextual meaning of its content (Hsieh and Shannon, 2005).

Qualitative content analysis is a method that sorts written or oral materials into identified categories of similar meanings (Moretti et al., 2011; Elo et al., 2014). The inductive variant extracts the meaning categories directly from the data (Cavanagh, 1997; Moretti et al., 2011; Elo et al., 2014). The method has three characteristics: it reduces data, it is systematic and it is flexible. It requires the researchers to center on those parts that relate to the overall research goal (Schreirer, 2014). If content analysis is properly conducted, it will yield trustworthy results (Elo et al., 2014).

In this work, the meaning categories that were searched for were the criteria used to distinguish the subtypes of analogy argumentation. These criteria were not predetermined but inductively extracted from the texts.

However, the *idea* that there existed criteria used for distinguishing various subtypes of course preceded the study. It was assumed that if there are claims of subtypes, then there are also claims of criteria – explicit or implicit – that distinguish the subtypes.

Any type of classification or division between various arguments will employ some kind of distinguishing criterion. Thus, it was these classifications "criteria" or "parameters" that were extracted into meaning categories, and the subtypes were clustered under the criteria that were used to distinguish the subtypes. Every author who has talked about or used various subtypes of analogical arguments has explicitly or implicitly employed such a criterion to some extent. However, a subtype of an argumentation type may be classified by virtue of several parameters, and it may be difficult to distinguish exactly what feature is working as a criterion in distinguishing between types. Thus, although I was looking for criteria of classification prior the study, I had certainly not determined *which* criteria they were. After inductively identifying the meaning categories, I attempted to identify subcategories of each criterion. For instance, one meaning category into which the subtypes of many authors could be sorted is the criterion of *function*. However, this general criterion is usually not stated explicitly. The authors rather differentiate various subtypes based on whether they have predictive or classificatory function, or whether they have a supportive or refutative function and so on. Such textual clues provide information not only that a certain function is used as a distinguishing criterion but also about the subcategorizations that distinguish between various types of function.

1.2.2. Extracting and Defining the Meaning Categories

My grounds for cataloging a subtype under the heading of a certain criterion for subdivision have been the author's own explicit claims. For example (the reader can see this in section [2.2.3] table 5) both "pointing out a common principle" and "heuristic" fall under the class function because the authors concerned have distinguished or described a certain type of analogy argumentation by appealing to their difference in function. Brown, for one, clearly uses difference in function in order to distinguish between two types of analogical arguments, which he calls "proportional" and "predictive" (Brown, 1989, p. 163):

> Even in those cases where a proportional analogy and a predictive one may be paraphrases of each other or equivalent to each other in underlying logical form, the two [arguments] are not used interchangeably. This is true because the two forms do not have the same function either in reasoning or in discourse.

Thus, Brown's subtypes proportional analogy and predictive analogy are clustered under the criterion of function (section [2.2.3]). However, often it may not be entirely clear whether a theorist really uses a given criterion as ground for a distinction or not. For example, Louise Cummings writes that argumentation by analogy is used in public health reasoning:

> As a form of presumptive reasoning, analogical arguments have a valuable role to play in closing epistemic gaps in knowledge. This heuristic function of these arguments is illustrated through an examination of some uses of analogical reasoning in recent public health crises. (Cummings, 2014, p. 169).

Does this mean that Cummings uses *function* as criterion to distinguish between various analogical arguments? Or is this just an application of the same argumentation in a certain context? Of course, I have in many instances been forced to make a decision based on an uncertain interpretation of what the author seems to think or is committed to. In this case I decided that it is not completely unreasonable to claim that Cummings is talking about a certain type of analogical argumentation used in public health. Given that, she uses a type of analogical argumentation in public health divided on the basis of its function. Therefore, I have included her argumentation in the table of function.

If an explicit claim is missing, I have tried to make a plausible interpretation of what seems to be the basis for the author's distinction. The most salient feature the author uses that could explain the subdivision is taken as the criterion. This means giving attention to how the author uses the contrasting subtypes or how the author describes them. Although this judgment is based on a particular assessment of the material, whenever there is ambiguity between different criteria I have given precedence to an interpretation that gives rise to a new criterion in order not to exclude any criterion that has been employed. Since many authors often employ

many features together as grounds for classification and these features are often interrelated. I try to interpret the meaning categories of criteria in a *broad* manner. Furthermore, since this an article overview of how analogical arguments have been distinguished and classified both in theory and in actual practice, there is no guarantee that the criteria in my overview have been used in a coherent or consistent way or that the author has used a criterion deliberately.

There are several challenges involved making this kind of comprehensive overview. One problem is that various philosophers may use the same term but mean different things or vice versa, or they may not really name the subtypes at all, only describe or use them. Sometimes the terminology is misleading. For example, several philosophers who think that argumentations by analogy are irreducible to the inductive or deductive type of argument still subdivide argumentation by analogy into an "inductive" type and a "deductive" type, which has caused others to make faulty classifications.

Another problem is that various philosophers use contrasting criteria and taxonomically dissimilar axes, focusing on contrasting criteria as grounds for classification. Several classifications are based on different parameters and made from dissimilar perspectives.

Yet another problem is that the authors may focus on different dimensions of an argumentation. Thus, some divisions or classifications appear to coincide even though they have different criteria for classification, while others cut across contrasting classifications.

Another problem is, of course, that authors often may use more than one criterion at a time in order to divide types into distinguishable subtypes. In such cases I have put the subtypes into more than one category of criterion. Various authors make their distinctions in a cross-categorical way. The criteria I have found not only take into account different dimensions of analogical arguments, but are also on different levels. Various authors have focused on various aspects, which has yielded classifications based on contrasting levels of an argumentation. For example, the criterion *function* refers to the use of the argumentation, which probably has different logical patterns, which can be rooted in different epistemological accounts.

Another philosopher may look at the same argumentation but base his distinction on logical patterns or the contrasting epistemological account.

I have not discussed further sub-classifications of using a *combination* of criteria unless the author him-/herself makes such distinctions. For instance, nothing prevents you from first distinguishing two types of argumentation by analogy by virtue of their dissimilar function in the discourse, and then subdividing these sub-arguments according to their mode of inference and subdividing these sub-sub-arguments according to their logical structure, and so on. You could apply the same criterion again for each new subtype. Perhaps sub-subtypes can be divided according to contrasting functions.

1.2.3. Scope and Limits

1.2.3.1. Material search and Databases

The overview covers all arguments that in some way reason via some kind of similarity, analogy or comparison. I wanted to provide a genuinely comprehensive input to the field and therefore I did not limit myself only to argumentation theorists. Argumentation by analogy ("argument by analogy") is defined by the *Stanford Encyclopedia of Philosophy* as: "an explicit representation of a form of analogical reasoning that cites accepted similarities between two systems to support the conclusion that some further similarity exists." (Bartha, 2011, p. 1). This overview has focused on those authors who accept arguments by analogy as genuine arguments and on how different subdivisions are made of argumentation by analogy.

An important terminological issue in the study is the fact that the contemporary use of analogy does not always have the same meaning as in the classical uses. The classical Greek term for analogy (analogia or αναλογία) is sometimes translated as "proportion", which would include ratios (3 is to 6 as 4 is to 8). Many of the contemporary uses of analogy simply refer to some kind of comparison between similar things in order to justify an inference based on similarity. Terms like "proportion", "similarity", "same", "figure", "simile", "metaphor", "comparison" "case-based-reasoning", may

all refer to analogy in some sense. Analogy is sometimes used in this broad sense referring to any comparisons of similarities between two or more objects, and sometimes in a more qualified sense, referring to a certain kind of similarity.[1]

This work brings together research from different fields to provide an overall picture of different ways of classifying arguments by analogy. It attempts to deal with different understandings of arguments by analogy in a broad sense. The research reviewed includes, but is not limited to, work from argumentation theory, artificial intelligence (AI), cognitive science, linguistics, archeology, mathematics, natural sciences, philosophy, psychology and (other) social sciences. A vast number of kinds of arguments from comparison have been referred to as analogies or as analogous, and analogy has been studied from a number of disciplinary perspectives.[2] An extensive literature search was designed to identify and retrieve primary studies relevant to the project's major research goal. Articles ranging from artificial intelligence to archeology have been taken into account. The database Philosopher's index was used although most of the retrieval work was carried out using the web search engine Google. The search was very broad. The keywords used were "analog*", or "analogy", or "argument*" + "analog*" or "reasoning" + "analog*", or "argument*" + "comparison" or "case-based reasoning", in order to not miss anything that could be relevant for the study. I made a further search for "analog*" on the *Informal Logic* website and on the *Argumentation* website.[3]

The working process of selection consisted of three steps: first, a collection of articles and books that matches the searches for analogy in general, second, a selection of those articles that concern argumentation by analogy in particular, and third, a selection of those articles that are relevant for distinguishing various subtypes of argumentation by analogy. The follow-

[1] The more qualified sense is stated well by Holyoak's view on analogy: "Analogy is a special kind of similarity.. . two situations are analogous if they share a common pattern of relationships among their constituent elements even though the elements themselves differ across the two situations. " (2005, p. 117).

[2] Even environmental ethics employs argumentation by analogy to a large degree, see Eggleston (2011).

[3] Informal Logic: http://ojs.uwindsor.ca/ojs/leddy/index.php/informal_logic/index; Argumentation: http://link.springer.com/journal/10503

ing inclusion criteria were used: (a) accessibility — the study must be publicly available or archived;[4] (b) relevance — the study must at least contain arguments or reasoning by analogy; (c) sufficiency—it must not be too difficult to identify what kind of classification an author implicitly or explicitly employs in his/her discussion/treatment of analogical arguments; (d) language — the material must be in English.

A mere reference to or use of analogy or any of these other concepts is insufficient for a work to be included in this overview. The works I have included attempt to theorize about or otherwise explicate one or more of the uses of analogy as *arguments*. However, the exact distinction between analogical reasoning in arguments and other types of analogical reasoning is not always entirely clear and, as a result, sometimes works that discuss analogical inferences as such are included. However, analogical reasoning used to explain something, or for the purposes of illustration or elucidation, have in general been excluded.

There are at least two differences in purpose between an argumentation and an explanation. The goal of an argumentation is that the premises give support for *accepting* the standpoint, whereas the goal of an explanation is to give an *account of how* the conclusion came about. Secondly, an argumentation aims at establishing *new* truth or determining controversial truths, whereas explanations give an account of truths that are supposed to be *already accepted* (Bex & Walton, 2012). Thus, when analogical means are used to give an account of how the conclusion of already accepted truths came about, it is a case of analogical *explanation*, and when analogical means are used to support the belief in new or controversial truths, it is a case of analogical *argumentation*. However, explanations can be used as arguments in certain contexts. For example, in a situation where it is claimed that a theory is unclear or incoherent, an explanation can show that it can be clarified and coherently elucidated, and the epistemic value of explanatory power is something that can be employed in an argumentation. Moreover, the indicators necessary to discern whether reasoning is explanatory or argumentative may be lacking or ambiguous or the author may simply discuss analogical reasoning in very broad and general terms.

[4] The reason for this is that I want other researcher to be able to assess my work and continue to build on the foundation that I have laid.

I have included other but less comprehensive attempts to analyze the literature concerning subtypes of argumentation by analogy, as well as their sources (because the reviewers' classification could differ from the original source). I have not, for obvious reasons, analyzed every possible article that *uses* argumentation by analogy and from that discovered or extracted a new subtype of argumentation by analogy. Another limit is that the overview will be restricted to literature in English. I have rejected articles that claim that argumentation by analogy can be reducible to another type of argumentation; it is meaningless to review classifications of an argumentation type that *ex hypothesi* does not exist. I will therefore assume that arguments by analogy are an irreducible type of their own, which means that the ideas about analogy of authors such as Keynes, Nagel, Hempel, Allen, Kaptein (2005), Agassi (1988), Botting (2012), Beardsley (1950), Johnson (1989) and to some extent Waller (2001) and Shecaira (2013), will not be discussed.[5] These authors think that arguments by analogy are inherently flawed or reducible to inductive, deductive or abductive arguments or some combination thereof, and will only be discussed insofar as their work has particular relevance to the idea that analogical arguments are an authentic type of inference. I have also avoided articles that explicitly discuss arguments from metaphor. The relation between metaphor and analogy is interesting and important, but cannot be included in a discussion that focuses on subtypes of analogical argumentation. The relation between analogy and metaphor has been discussed by a number of other authors (Gentner & Bowdle, 2008; Gentner et al., 1987; Gentner et al., 1988; Musolff, 2006; Thagard & Beam, 2004). I have only made an exception for cases where *metaphor* is used in the sense of "figurative analogy" and not "genuine" "metaphorical arguments".[6] Analogical reasoning must also be

[5] Allen's position is mentioned in Botting (2012). The views of Hempel (1965); Keynes (1957); Nagel (1961) are mentioned in Gamboa (2008). Shecaira (2013) thinks that *a priori* analogies in ethics and law should be understood as composite argumentation made up of (i) one (sub)argumentation that resembles an inference to the best explanation and (ii) one deductive argument (personal communication 2014-02-19).

[6] It is, however, not always easy to make a clear-cut distinction between argumentation from metaphor and analogy argumentation. See for example Musolff (2006) who focuses on arguments by metaphor, but ones which are very similar to arguments by analogy using distant domains of comparisons. The distinction between arguments by metaphor and analogy argumentation depends on which conceptual apparatus and what conceptual perspective is used in the terminology.

distinguished from arguments that employ *extensive interpretation* in law, which may be reminiscent of analogical reasoning but which are something else.[7]

1.2.3.2. Terminology

Various terms have been used by different authors for distinguishing the objects of comparison, such as Source vs. Target, Source Case vs. Target Case, Primary Subject vs. Analogue, Source domain vs. Target Domain, Case vs. Parallel Case, Analogue vs. Target Subject. The Analogue, Source, Source domain etc is that which is known from which a predicate is transferred to the Target Subject, Target Case, Primary Subject, Source Domain etc.

1.3. Organization of the Result of the Study

The search for meaning categories resulted in a discovery of a total of nine criteria for subtype categorization (which can be combined) that have been used by various authors (consciously or unconsciously). These are: (1) Status of the Analogue, (2) Function or purpose, (3) Logical form, (4) Domain constraint, (5) Mode of inference, (6) Variants of the determining relation, (7) Quantity of analogues, (8) Contrasting elements of comparison, (9) Contrasting testing procedures. I will explain each criterion in more detail under each separate heading. I have organized the overview so that all subtypes that employ the same criterion for subdivision are clustered together under the same criterion in sections [2.2], [2.3], [2.4], and the rest of the criteria will be discussed in part II. In each of these sections (in both part I and part II) the subtypes, their authors and the criterion they employ to distinguish the subtypes are commented and explained.

In the end of each section is a table that catalogs the subtypes and the authors in order to make it easier for the reader to grasp the overview. If an author employs more than one criterion for the classification or if it is unclear which of two criteria an author has used, then the subtypes are

[7] For a discussion about the difference and how it relates to the philosophy of law, see Canale and Tuzet (2014).

clustered under more than one criterion. In the tables, one can see the label of each subtype, the author, and by which criterion the subtypes are classified. An empty cell in the table means that the author has not formulated any further subdivided argumentation (although the author has used the criterion for those arguments that are in other cells).

Arguments in the same column are the same "type" of arguments *insofar that they are distinguished by the same criterion*. That is, given the actually used criterion, they belong to the same subtype of analogy argumentation. As stated above, this does not exclude them from also being classified as another type of analogical argumentation if another criterion is applied; the criterion for my listing is the criterion the various theorists *themselves* seem to employ. There is a limit, however, to how precise and specific these criteria can be. The reason for this is that in an inductive quality content analysis (in contrast to a deductive quality content analysis), the meaning categories are extracted *from* the texts and not theoretically constructed and defined *prior* to the analysis (Cavanagh, 1997; Moretti et al., 2011; Elo et al., 2014). The study is a study of actual claims and actual use, which are not always well-defined. Therefore, in extracting the meaning categories from the text and defining them, the definitions of the criteria need to be broad enough to encompass any plausible interpretation of authors' actual use. Moreover, it seems more reasonable to systematize the result of the overview into clusters under a limited number of more general concepts than to make a category for each small specified difference of arguments that is a possible interpretation.

In section [2.3] I discuss the relationship between these criteria that was treated in the preceding sections. In this section I will provide some tentative normative remarks on the classification of arguments and argue that contrasting testing procedure is the most important criterion for distinguishing types and subtypes of arguments. In section [2.4] I provide a summary and the conclusions of this chapter.

1.4. Previous Attempts

There have not been many attempts to produce systematic overview of proposals of subtypes of analogy argumentation. The reason for this is, I think, besides all the challenges of such an attempt, that it has always been con-

troversial whether arguments by analogy are a genuine class of arguments irreducible to the standard pattern of inductive or deductive arguments. Marianne Doury, however, is an exception (Doury, 2009). She has attempted to provide non-exhaustive inventory of the main parameters identified in academic works that permits sub-division of arguments by analogy (or comparative arguments, which is the term she uses for them as a general class) (Doury, 2009). Her discussion is a methodological overview and its goal is to provide a systematic typology for the argument schemes of 'comparative arguments', based on actual argumentative practices. Doury discusses various criteria used to classify different subtypes and found four main parameters used as grounds for typology by authors in argumentation studies: (1) Domain constraint (whether the objects of comparison belong to the same domain of not), (2) Qualitative/Quantitative Orientation (whether the analogy concerns quantitative or qualitative considerations), (3) The Epistemic Status of Premises (how the analogue is known or justified), (4) The Dialectical Orientation of the Argument (whether the argumentation aims at supporting or refuting something). In the next section I will discuss what criteria this overview has discovered.

2. Classification Criteria found in the Literature

2.1. The View of John Wisdom

Before we focus on the various subtypes that have been claimed by various authors, we will discuss the unorthodox view of John Wisdom that *all* reasoning cases are types of analogical reasoning. Wisdom had a unique view of arguments by analogy, or "case-by-case procedure", or "arguments by parallels", as he called them. According to Wisdom a case-by-case procedure is the foundation not only of all kinds of reasoning but also of knowledge itself; it is all ultimately based on our ability to compare and discern similarities and differences (Wisdom, 1991). This means that induction and even deduction in the end come down to a case-by-case procedure. Thus, one who offers a deductive proof does not offer more than what he could have done with a case-by-case proof (Wisdom, 1991). The only way to show that an inference is correct is to look at another particular case and show that it is parallel. Wisdom even claimed that the difference between induc-

tive reasoning, deductive reasoning and case-by-case reasoning is really a matter of the form of the argumentation, or in other words, how it is formulated (Wisdom, 1991, p. 105). In the end, any reasoning can be reduced to basic case-by-case reasoning: "The Justification of the premise in the end will rest on cases. . . " (Wisdom, 1991, p. 106). Yalden-Thomson summarizes Wisdom's view well:

> When we are wondering whether the object before us is a spade, whether the right legal decision was reached, whether the firm of Baker and Sons is bankrupt, or whether it is true that love is always in part hate, we look at parallels; we notice affinities and dissimilarities between objects or cases before us, and the similar instances we can see or conceive . . . as to whether an action was or would be right or wrong . . . people often argue by pointing out comparable action; and they do so whether they have in mind general moral principles or not (Wisdom, 1991, pp. xv-xvi).

Wisdom stipulated a distinction between what he labeled arguments by analogy, which are confined to actual cases, and arguments by parallels (or "case-by-case procedure"), which encompass imaginary cases as well. His peculiar view was that inductive and deductive arguments are reducible to, or at least dependent on, a basic analogical (or case-by-case) reasoning. Wisdom's view can be interpreted as displayed in the table 1:

Table 1. The classification by John Wisdom.

Basic case-by-case reasoning				Wisdom (1991)
Inductive arguments Reducible to/ Dependent on basic case-by-case reasoning)	Deductive arguments (Reducible to/ Dependent on basic case-by-case reasoning)	Argument by analogy (Case-by-case reasoning with actual cases)	Reasoning by parallels (Case-by-case reasoning with imaginary cases)	

Even if few other authors have accepted such a view, some think that analogical reasoning is much more prevalent than received opinion holds. For instance, John Burbidge, who does not think that reasoning by analogy is the basis for all kinds of reasoning, but still thinks that induction, even statistical induction, is just another form of argumentation by analogy (Burbidge, 1990). The only difference is that there are fewer dissimilari-

ties between the objects of comparison, so that one may talk of categories or populations, like "cows", "people", or "mammals", etc (Burbidge, 1990, pp. 41-79).

2.2. Status of the Analogue

"Status of the analogue" refers to subdivision is based on a difference in the "status"; it can be normative status or something else. If it is normative status it means that the subtypes are distinguished because one type of argumentation solely has descriptive content whereas the other type of argumentation has normative content as well (in premises and conclusion). This criterion for subtypes in this cluster is defined as follows:

> The status of the Analogue is the criterion employed for subdivision if and only if two analogical arguments are distinguished as two types based on whether the Analogues differ with respect to a certain "status" (descriptive vs normative etc.).

A variant of this criterion is strictly epistemological: whether the Analogue is known *a posteriori* or known *a priori* – a hypothetical invented case. In that case the criterion would read:

> The status of the Analogue is the criterion employed for subdivision if and only if two analogical arguments are distinguished as two types based on the *epistemic* "status" of the Analogue – whether it is known *a posteriori* or *a priori*.

According to the epistemological variant, a comparison can obtain between two factual cases, or between one hypothetical invented case and a factual case, or between two hypothetical invented cases. I have subsumed these variants under the same criterion because they are so exceedingly intertwined and are always mentioned together.

Wisdom's distinction between "Argument by analogy" and "Reasoning by parallels" made in lectures he gave in the 1960s, was historically the inspiration for the similar distinction between empirically grounded "argument by inductive analogies" and "noninductive argument by analogy" by

Steven Barker (S.F. Barker, 1989) and Everlyn Barker (E. Barker, 1989).[8] Stephen Barker distinguishes between "inductive argument by analogy" and "non-inductive arguments by analogy". The inductive argumentation by analogy does not depend on our being able to establish any generalization that all or most F's are G's, but on a case being similar to other cases. Thus, inductive analogies have the following general structure (Barker, S.F., 1989, p. 175):

(1) a, b, c ... each has been observed to have property F and G;
(2) n is observed to have property F;

---

(3) Therefore, probably n has property G.

According to Doury, this criterion is the reason for Trudy Govier's distinction between inductive analogies and *a priori* analogies (Doury, 1999). Govier made the same division but labeled noninductive analogies as *a priori* analogies (Govier, 1989, 2010). She has written about various types of arguments by analogy. The most salient subdivision is however between argument by *a priori* analogy and argument by *inductive analogy* (Govier, 1989, 2010, pp. 333-335).

According to Govier there are three main differences between these two types of argumentation by analogy. Inductive analogies are predictive, they make inferences of what to expect in the target subject, whereas *a priori* analogies are not making predictions. Govier follows the terminology of E.M. Barker and S.F. Barker and Wisdom in which the Analogue in an inductive argumentation by analogy is a real instance with features that are ascribed to it by empirical means (Govier, 1989, 2010, pp. 333-335). The similarity between the Target-Subject and the Analogue are factual empirical similarities (Govier, 1989, 2010, pp. 333-335). It is possible (in principle) to acquire evidence in order to assess whether the conclusion of an inductive analogy is correctly predicted independently of the similarities cited in analogy. According to Govier (1989, p. 143), "argumentation by inductive analogy" has the following scheme:

[8] Wisdom's lectures were transcribed by Barker and published as a much-delayed book in 1991.

1. A has x,y,z.
2. B has x,y,z,
3. A is W.

---

4. Therefore, B is W.

An argumentation by *a priori* analogy, on the other hand, is a comparison in which the Analogue may be entirely hypothetical or fictitious without weakening its argumentative merit (Govier, 1989, 2010, pp. 327, 333-334, 349). The purpose is to make us perceive things in a certain way. Arguments from *a priori* analogy, in contrast to inductive ones, often appeal to what Govier calls consistency (and what Reidhav 2007 calls the formal principle of justice): that relevantly similar cases should be treated similarly (Govier, 2010, pp. 320-325). The idea that the one type of analogical argumentation is connected to this principle is very close to Frans van Eemeren's and Bart Garssen's claim about the subtype argumentation by normative analogies being connected to the principle of consistency (Garssen, 2009; van Eemeren & Garssen, 2014). (Their position is clarified later). A good example of an *a priori* analogy would be Judith Thomson's famous analogy between killing an unconscious violinist and abortion (Govier, 1989). It should be stressed that *a priori* analogies are not necessarily deductive; the conclusion does not follow in virtue of its logical form, they are *a priori* but non-deductive arguments. Her reconstruction of *a priori* analogical argument schemes is as follows (Govier, 1989, p. 144):

1. A has x,y,z.
2. B has x,y,z.
3. A is W.
4. It is in virtue of x,y,z that A is W.

Therefore, B is W.

Govier also mentions other subtypes but these are discussed under other headings since she employs other criteria in distinguishing these subtypes. It is not always the case that the inductive analogy is contrasted with some other type. For instance, John S. Mill has a well-known discussion about

inductive analogy but never contrasts it with some non-inductive type (Mil, 2013 [1882]). Another concept which is very often intertwined with the idea of empirical vs. non-empirical content of the Analogue is the difference that an inductive analogy, in contrast to a non-inductive analogy, makes a *prediction*. However, this does not inevitably change the criterion for division; the prediction follows from the fact that an inductive analogy has empirical content. Inductive analogies are based on empirical experience. They are always making a prediction that the target subject will also have a certain property. Given that two or more objects share certain properties, it is then expected that they also share another property.

This is not the case with so called "*a priori* argument by analogy", where the relevant similarities between the analogue and target subject are often *invented a priori* independent of reality *in order to make an appeal to treat or think about them similarly*. *A priori* analogies characteristically have a normative content beyond a purely empirical content. A certain class of analogical argumentation used in law falls under this category. Katja Langenbucher maintain that there are two kinds of argumentation by analogy, one which we may call "empirical" that aims at establishing a physical quality of the compared items which arrives at a probabilistic conclusion; another type are arguments by analogy in law, which are *normative* rather than descriptive. Langenbucher states that this type of analogy implies that the two items are to be treated alike since they share a number of deontic qualities, which justifies the applicability of a certain norm (1998, pp. 487-488). The same distinction is made by Reidhav (2007, pp. 32-51). Sunstein summarizes the structure of legal argumentation by analogy in four steps:

> (I) Some fact pattern A has a certain characteristic X, or characteristics X, Y, and Z; (2) Fact pattern B differs from A in some respects but shares characteristics X, or characteristics X, Y, and Z; (3) The law treats A in a certain way; (4) Because B shares certain characteristics with A, the law should treat B the same way. For example, someone asking for protection against domestic violence is requesting affirmative government assistance, just like someone asking the government for medical care; it is said to "follow" from the medical care case that there is no constitutional right to protection against domestic violence. (Sunstein, 1993, p. 745).

In law there is an important distinction between extracting a rule, ap-

plying it, and contrasting analogical (case-based) reasoning. The contrast can be seen in table 2.

Table 2. The methods of rule extraction and case comparison in law.

Rule extraction method	**Case comparison method**
(1) Extracting rules from decided cases	(1) Selecting relevant case facts, cases
(2) Showing that rule conditions are satisfied	(2) Establishing an analogy between cases
(3a) Applying extracted rules to the case at hand (3b) Pointing out exceptions to extracted rules	(3a) Following decided cases in the case at hand (3b) Distinguishing decided cases from the case at hand

David Reidhav has made a study on analogy-based arguments in law and therefore has a judicial perspective (Reidhav, 2007). He claims that argumentation by analogy in reality refers to a family of arguments of which some are inductive, some are normative (Reidhav, 2007, p. 22). If the conclusion derived from the other propositions states how the target case ought to be treated it is a "normative argument from analogy", otherwise it is an "inductive argument from analogy" (Reidhav, 2007, pp. 22-23). The normative argumentation from analogy is used to justify either equal or different treatment of legal cases. This suggests that function also is used as a criterion for distinction, which is why his division is included under that criterion as well (see next section). What is essential to arguments from analogy is that they proceed from case to case. He, however, claims to propose a model in which arguments by analogy are given a form so that they come out as deductively valid (Reidhav 2007, p. 16 onward). According to Reidhav, an "inductive argument from analogy" has the following form (2007, p. 33):

(1) The entities *a* and *b* share properties P_1 and P_2 but not property P_4
(2) P_1 and P_2 preponderate over P_4
(3) *a* has the further property P_3

---

(4) Thus, *b* has the property P_3

The probability of an "inductive argument from analogy" is a function of the amount of common properties and their relevance to the inferred property (Reidhav, 2007, p. 33). Normative arguments from analogy can be subdivided into "normative arguments from *positive* analogy" and "normative arguments from *negative* analogy". The "argument from positive analogy" can be given the following preliminary form:

(1) C_1 [source case] ought to be treated as *Q*.
(2) C_2 [target case] is relevantly similar to C_1.

---

(3) C_2 ought to be treated as *Q*.

The similarity between the source case and the target case is employed to justify the inference of the same legal consequence. A "normative argument from negative analogy" works in the opposite way: it is concluded that the target case ought not to be treated like the source case since there is relevant dissimilarity between the cases. Normative arguments from analogy will, together with principle of formal justice, turn into deductively valid arguments. The principle of formal justice can be formulated (Reidhav, 2007, p. 48):

(PFJ) Treat relevantly similar cases alike and relevantly unlike cases unlike.

Since this is a universal generalization the "argument from positive analogy" can be amended as follows (Reidhav, 2007, p. 50):

(1) If two cases are relevantly similar, they ought to be treated alike.
(2) C_1 [source case] ought to be treated as *Q*.
(3) C_2 [target case] is relevantly similar C_1

---

(4) C_2 ought to be treated as *Q*.

As Reidhav points out, this is a deductively valid argument: the conclusion follows necessarily from its premises in virtue of its syntactical form (Reidhav, 2007, pp. 36-40). However, as the reader can see in premise (3) the

reference to analogy ("relevantly similar") is retained as an essential part of the argumentation. According to Reidhav, the principle of induction is to inductive arguments from analogy what the principle of formal justice is to normative arguments from analogy (Reidhav, 2007, pp. 50-51). Mostly argumentation from analogy in law works via precedent, which is a relevantly similar case which has already been resolved. What Reidhav (2007) calls "normative argument by analogy", and Sunstein labels "analogical reasoning in law", are basically what Govier calls "*a priori* analogy" and what Stephen Barker (1989) labels "noninductive argument by analogy", with the exception that the arguments are employed in the context of jurisprudence. Even if the case comparison method is a *method*, and not an argumentation, it would probably be classified as a "normative argument by analogy" by authors using this kind of criterion for classification, at least when the *result* of the method is formulated in an argumentative context.

Van Eemeren and Garssen argue that there are two genuine subtypes of argumentation by analogy (or argumentation by comparison) and figurative analogy, which only seemingly utilizes a comparison but in reality does not (Garssen, 2009; van Eemeren & Garssen 2014). The genuine subtypes are "argument by descriptive analogy" and "argument by normative analogy" (Garssen, 2009; van Eemeren & Garssen, 2014). In the "descriptive argument by analogy" there is a prediction-based extrapolation of common properties and "both the standpoint and premise are descriptive in nature: in both propositions a state of affairs is expressed." (Garssen, 2009, p. 136). The second type of argumentation by analogy is combined with the principle of consistency, and both the standpoint and premise are normative in nature. Garssen describes the difference in this way (Garssen, 2009, p. 136):

> There is, however, an important difference with the former type of comparison argumentation: application of the principle of consistency does not involve an extrapolation of characteristics. The central issue is whether the two elements (persons, groups etc.) really belong to the same category and whether this category is really relevant to the claim made in the standpoint. Another difference with the first variant of comparison argumentation is the fact that in this case the standpoint is by definition normative in nature: in the standpoint the claim is made that some person (or some group) should be treated in a certain way.

This might give the impression that it is the "status" of the Analogue that is the crucial criterion.[9] However, even though it is one of the criteria, it is not the most important; it is rather something that follows from a difference in the operating inference principle. Although a difference in the content of the Analogue (descriptive versus normative content) is part of the criterion, the most important is "different uses of the pragmatic principle of analogy and the slight difference in the critical questions that is the consequence of these differences (the principle of extrapolation for descriptive analogy and the principle of consistency for normative analogy)" (Garssen, 2014, personal communication 2014-02-18; see also van Eemeren & Garssen, 2014). Garssen and van Eemeren follow the pragma-dialectical criterion that a typology of argument schemes should be based on difference in the inference operating principle (a position I sympathize with) since that is what defines the evaluation procedure (Garssen, 2009; van Eemeren & Garssen, 2014). The critical questions are part of the testing procedure of argument schemes, but critical questions will be different if and only if the type or mode of the schemes' inference configuration is different. Thus, Garssen's and van Eemeren's subtypes will also be clustered under the criterion *mode of inference* in section [2.2.6], and under the criterion *contrasting testing procedures* in section [2.3].[10] The criterion mode of inference has an intimate connection with the criterion of testing procedure, which will be further discussed in section [2.3].

Waller uses the same terminology as Govier. According to Waller (2001) there are three types of analogies: inductive analogies, figurative analogies and *a priori* analogies. However, there is only one genuine argumentation by analogy: "argument by inductive analogy". Waller stresses that the failure to distinguish between these types results in problematic and wrongful

[9] Some authors (Barker for instance) mention the content of premises as the basis that determines the subtypes, but that amounts to the same as asserting that the content of the conclusions is the crucial criterion. The standpoint can only be normative in an analogical argumentation because the Analogue is normative-loaded and transfers a normative-loaded predicate to the Target-Subject. Thus, asserting the difference of normative versus descriptive standpoints as the criterion is the same criterion as the difference in normative versus descriptive status of the premises.

[10] As stated, the criteria should be interpreted in a broad sense. Thus, "mode of inference" includes whatever might be "subtypes of inference" within a type of inference and not just variation of the strength of the inference.

analysis of argumentation. The function of figurative analogies is not to argue but to elucidate and illustrate something, but often are they treated as flawed inductive arguments by analogy. Waller quotes Samuel Johnson's illustration of the difference between *argument* and testimony (quoted by Waller, 2001, p. 200):

> Argument is argument. You cannot help paying regard to their arguments, if they are good. If it were testimony you might disregard it . . . Testimony is like an arrow shot from a long bow; the force of it depends on the strength of the hand that draws it. Argument is like an arrow from a cross-bow, which has equal force though shot by a child.

This illustration marks the difference between testimony and argumentation by employing figurative analogy. This analogy *illustrates* but does not *argue* for that distinction and to attempt to treat all analogies as if they were arguments means that you ignore figurative analogies which have an entirely other function. In short, Waller thinks there are two major types of analogies, figurative analogies and arguments by analogy, and these should not be muddled. Garssen and van Eemeren hold a similar position on figurative analogies but view figurative analogies as presentational devices for the causal or symptomatic argument scheme (Garssen, 2009; van Eemeren & Garssen, 2014). In Waller's view, the genuine arguments by analogy that really argue for a conclusion are divided into inductive and deductive kinds, and a further problem is that these different types also are muddled (Waller, 2001). Waller asserts that "deductive arguments by analogy" are the more important of the two and that they are often used in philosophical disputes and courts of law. Waller's "deductive argument by analogy" would be what Govier labels "argument by *a priori* analogy", what S.F Barker and E.M. Barker label "argument by noninductive analogy", what Garssen calls "argument by normative analogy" and Reidhav calls "normative argument by analogy" but reinterpreted as a *de facto* deductive argument. A problem, according to Waller, is that deductive arguments by analogy are often confused with inductive ones. Waller asserts that deductive arguments by analogy have the following argument scheme (Waller, 2001, p. 201):

1. We both agree with case a.
2. The most plausible reason for believing a is the acceptance of principle C.

3. C implies b (b is a case that fits under principle C).

---

4. Therefore, consistency requires the acceptance of b.

What is notable in Waller's account of the argument scheme is that it reduces "deductive argument by analogy" to a *purely* deductive argument. It seems meaningless to call this "argument by analogy" since the reference to analogy is gone; what it is left is a deductive argument. Although Waller's "deductive argument by analogy" agrees with Reidhav's "normative argument by analogy" in that in both arguments the conclusion follows in virtue of its syntactical form, there is an essential difference, since Reidhav's formulation keeps a reference to *analogy* ("relevant similarity"). Waller's conception of "inductive argument by analogy" seems to be the same as that of Govier. It has the following scheme (Waller, 2001, p. 202):

1. D has characteristics e, f, g, and h.
2. E also has characteristics e, f, g, and h.
3. D also has characteristic k.
4. Having characteristics e, f, g, and h is relevant to having characteristic k.

---

5. Therefore, E will probably also have characteristic k.

Waller's position appears to result into just two kinds of analogies – "figurative analogy" which is not an argumentation at all but serves to illustrate and explain – and "inductive argument by analogy". Deductive arguments by analogy are analyzed in terms of common deductive arguments. What Waller labels "deductive argument by analogy" is "*a priori* argument by analogy" in Govier's terminology. The position that certain arguments by analogy should be reinterpreted as deductive arguments has been criticized by Govier (1989), Guarini (2004), and me (chapters 3, 5, 6), S.F. Barker (1989), E.M. Barker (1989), and Bermejo-Luque (2014).

Walton also argues for an inductive type of argumentation by analogy. The argument scheme has in one of the premises a requirement that there be a similarity between the two cases (Walton, 2006, pp. 96-100; Walton et al. 2008, p. 55-57), which Walton contrasts with a type of analogy argumentation based on classification (Walton et al., 2008, pp. 69-70). The

criterion seems to be of the same type as the criterion for the distinctions made by E.M. Barker, SF Barker, Govier, Waller, Reidhav, and van Eemeren and Garssen.

Shecaira (2013) tries to reduce the non-deductive analogy to a composition of abductive and deductive argument, but appears to leave open that there may be genuine inductive analogies (although he never explicitly makes that claim). Several authors use different names, although they use the same criterion for the subdivision, as is shown in table 3.

Table 3. Analogical arguments distinguished by their difference in status of the Analogue.

Criterion for classification: status of the Analogue (whether normative vs. descriptive, whether *a priori* or inductive)			**Author**
Is known *a posteriori*/has empirical content	**Is known *a priori*/has normative content**		
Inductive analogy	*A priori* analogy		Govier (1989, 2002, 2010)
Argument by descriptive analogy	Argument by normative analogy		Garssen (2009)
Everyday analogical reasoning	Analogical reasoning in law		Sunstein (1993)
Inductive analogy	-		Mill (2013)
Argument by Inductive Analogy	Noninductive argument by analogy		Barker, S. F. (1989)
Inductive analogy	(The non-inductive argument is reducible to a deductive argument)		Waller (2001)
Inductive argument from analogy[11]	Argument from analogy based on classification		Walton, (2006, 2010, 2012; Walton et al. 2008)
Argument by empirical analogy[12]	Argument by normative analogy[13]		Langenbucher (1998)
Inductive arguments from analogy	Normative arguments from positive analogy[14]	Normative arguments from negative analogy	Reidhav (2007)
Argument by Inductive Analogy	Noninductive analogy		Barker, E.M (1989)
Inductive analogy	The non-inductive argument is reducible to a composition of abductive and deductive argument		Shecaira (2013)

[11] This label is mine, Walton never really labels the argumentation. His argumentation could arguably also be classified on the basis of logical form; see section [2.2.4]. Sometimes he uses the term “basic form”.

[12] Langenbucher never labels the types so this label is mine.

[13] Langenbucher never labels the types so this label is mine.

[14] Normative argument from positive analogy: (I) C1 (source case) ought to be treated as Q. (ii) C2 (target-case) is relevantly similar to C1. (iii) C1 ought to be treated as Q. (Reidhav, 2007, p.40). Such an argumentation does not work from induction but from what Reidhav calls the principle of formal justice: treat relevantly similar cases alike. These, however, seem to be distinguished based on function.

The distinction between analogical arguments based on whether the Analogue has normative versus purely descriptive content does not appear problematic. However, the variant that distinguishes between *a priori* purely invented analogies versus inductive analogies seems problematic, since several analogical arguments fall outside this taxonomic criterion. Many analogies have empirical content while simultaneously making no prediction but is still making an appeal to treat or think about them in a similar way. An invented example:

> You say that it is wrong for government to make abortion illegal because it will increase the total amount of deaths by increasing the number of women who die in illegal abortion. But that is like saying that government in South Africa should not have made apartheid illegal because it might increase the total amount of deaths due to riots and increased racial conflicts.

This clearly is an analogical *normative* argumentation that appeals to treat two cases in a similar way and it does not predict anything. However, the argumentation is obviously not *a priori* – without the data from South Africa the argumentation would fail. (For more about this, see Guarini's criticism of Govier's division in the next section.) Therefore, the same arguments can be classified by what they do, their function, which is discussed in the next section.

2.3. The Function or Purpose of the Analogy

The content analysis has revealed that many subtypes are classified with a functional or teleological criterion in a broad sense. The philosophers who employ this criterion for the taxonomy classify the subtypes in accordance with the purpose, use or function they have in the discourse or how the function of the analogy works in the argumentation (which in a sense classifies analogies in accordance with their effect). The result from the content analysis justifies this definition:

> *Function* is the criterion employed for subdivision if and only if two analogical arguments are distinguished as two types based on whether

they have contrasting functions, use or purpose in the discourse or inference.

For example, Brown asserts that there are two types of argumentation by analogy: *predictive* analogy and *proportional* analogy (Brown, 1989).[15] Arguments which utilize a predictive analogy make a comparison between two objects (events, ideas, classes of objects, etc.) and infer from the fact that the objects have attributes in common that they most likely have some other attribute in common. If two Cadillacs are in the same price range, you may infer by analogy that they are on the same level of quality.

The proportional analogy states that two objects have the same (or a similar) relation to each other as two other objects have to each other. For example: "As Porsche is to Volkswagen, so is Cadillac to Chevrolet." Since an inference is made, and as such may support an argumentation, proportional analogies may be employed in arguments. Although many variants of proportional analogy can be reduced to and reformulated as predictive analogies, there are those that cannot be formulated as such, because their logical structure is essentially different (see section [2.2.4]). Therefore, according to Brown, there are at least two legitimate different classes of analogy arguments.[16] But even in those cases where they have the same logical form, they cannot be used interchangeably since they have different *functions* either in reasoning or in argumentative discourse (Brown, 1989, p. 163). The function of a predictive analogy is to *predict* that an object has a certain attribute, whereas the function of a proportional analogy is to *point out a common principle* between two pairs of objects. It should be noted that there is nothing in the criterion itself that prevents it from yielding several more subtypes beyond these. For instance, arguments with the distinctive functions of *refuting* in contrast to *supporting* an analogy

[15] Brown (1989) also mentions figurative analogy, which he regards as a weakened version of proportional analogy. Furthermore, Brown claims that an analogy is never merely illustrative, explanatory, metaphorical, or literary. Analogies always play *some* role in an argumentation (p. 164).

[16] Brown (1989, p. 164) states: "I can think of no way to transform a proportional analogy involving an ordered pair of attributes into predictive form: 'As the Porsche surpasses the Volkswagen in speed, so does the Cadillac surpass the Chevrolet in luxury'. In fact, such a transformation is impossible because Porsche and Cadillac are not said to have any property in common."

would yield more subtypes. Other authors have made the same distinctions as Brown but with a different terminology. For example, Ehninger and Brockriede use "analogy" for "proportional analogy" and "parallel case" for "predictive analogy" (Ehninger & Brockriede, 1969).[17] Cummings (2004), who was mentioned earlier, talks about the heuristic function of analogical arguments in public health.

Emiliano Ippoliti and many others argue that there are two kinds of argumentation by analogy: demonstrative and non-demonstrative reasoning by analogy (Ippoliti, 2006). The distinction *demonstrative vs. non-demonstrative,* however, refers not to any difference in the nature of justification, but to the dissimilarities in function. "Demonstrative reasoning" by analogy means that it is a means of justification, in particular in the proving of theorems and in processes of corroboration of conjectures and hypotheses, while "non-demonstrative reasoning by analogy" is analogy used to formulate conjectures and hypotheses and has a purely creative function. Van Dormal has a "counter-factual analysis" of analogical inference instead of a justification-oriented approach (van Dormael, 1990). Dormael denies that analogical reasoning is about *proving* a *conclusion*; rather, he says, it is about *finding* a *solution*. An analogy between a source x and a target y is the result of thinking about x as if it were y, and thinking x is p (where p is a property of y). Dormael concludes that the success of analogical reasoning depends neither on the amount of shared properties nor on any structural similarities but on the "lack of differentiating between planes of reality" (van Dormael, 1990, p. 72). Van Dormael's analysis does not concern subtypes of analogical argumentation but rather an analysis of analogical reasoning *per se*. The subtypes of Dormael are distinguished from other reasoning (like inductive and deductive) by its creative function and seems very close to Ippoliti's non-demonstrative reasoning; the only difference seems to be that van Dormael emphasizes the counter-factual aspect. Although it can be contested that van Dormael and Ippolitis' subtypes in analogical reasoning really can be interpreted as subtypes of analogical argumentation, they are included under the criterion function for sake of completeness.

[17] It is not clear that all these different types of reasoning can be used as analogical arguments.

Guarini questions Govier's classification of arguments by analogy. Govier's position (which several philosophers have followed) involves making a distinction between "argument by *a priori* analogies" and "argument by inductive analogies". Guarini accepts that some analogies can only be evaluated by means of empirical investigation, and he also accepts that such analogies make predictions (Guarini, 2004, p. 164-165). Thus, those two criteria that mark the difference in Govier's classification of inductive versus *a priori* analogies appear to hold.

However, the third criterion, that "*a priori* argument by analogy" makes use of hypothetical cases, is faulty, according to Guarini. He points out that whether the analogue needs to be actual depends on *how* the analogy is *employed*, and gives an example of an obvious *a priori* analogy that appeals to consistency but still must be actual in order to work.[18] Thus, he refutes Govier's classification with the method of counterexampling.

Guarini provides his own classification based on two criteria: whether the analogies support a judgment regarding how a case should be treated or classified or whether they support a prediction. This is clearly a functional/teleological taxonomy. "Classificatory analogical arguments" would in many cases coincide with what Govier and others a call *a priori analogy,* although the basis for subdivision is different. The same applies to "inductive analogies"; they would in many cases coincide with predictive analogies. Doury's criterion, *The Dialectical Orientation,* appears to fall into this category (Doury, 1999, pp. 147-148). This criterion is based on whether the argumentation has a positive purpose (supporting the arguer's argumentation or standpoint) or a negative purpose (refuting the opponent's argumentation). For instance, Reidhav's distinction between positive and negative arguments by normative analogy is made by difference in function (Reidhav, 2007).

[18] The example was an analogy that used discrepant treatments of real similar cases to argue for the actual problematic treatment of black women by the U.S. courts. Further, as Guarini remarks, one cannot claim that the difference is that *a priori* analogies sometimes can make use of hypothetical cases, while inductive never can, since some inductive analogies work well even when the source analogue is hypothetical.

The application of analogy argumentation to other arguments occurs if an argumentation is criticized or supported by presenting a parallel to it, which means that the arguments must be accepted or rejected together. Juthe holds that "refutation by parallel argumentation" is a species of argumentation by analogy applied especially to another argumentation, with the purpose of refuting the attacked argumentation or supporting it against an attack by means of a parallel argumentation (Chapter 6 and Chapter 7). In its negative form it has been labeled "logical analogy" (Govier, 1985); "refutation by logical analogy" (Govier, 2010, pp. 325-327); "arguments from analogy" (Woods & Hudak, 1989); "counterexampling parallel arguments" (Hitchcock, 1992); "analogical arguments" (Guarini, 2004); "arguments by parallels" Hugon (2008); "refutation by logical analogy" (Copi & Burgess-Jackson, 1992; Copi, 1990); "method of logical analogy" (Krabbe, 1996); "refutation by parallel argumentation" (Chapter 6); "arguments by parity of reasoning" (Finocchiaro, 2007); "negative analogy" (van Eemeren et al., 2007, pp. 144, 155, 157); "rebuttal analogy" (Whaley, 1998; Whaley & Wagner, 2000; Whaley & Holloway, 1997; Whaley et al., 2015; Colston & Gibb, 1998; Colston, 1999, 2000; Hoffman et al., 2009); "refutational analogy" (Jansen, 2007a; 2007b). This dialectical dissimilarity seems to be the ground for identifying Govier's type "refutation by logical analogy" as a separate class different from inductive and *a priori* arguments by analogy.

Cameron Shelly has made a taxonomy of four types of analogical counterarguments (false analogy, misanalogy, disanalogy, and counter-analogy) that he classifies along two dimensions: orientation and effect (Shelley, 2004, 2002a, 2002b, 2002c). Orientation refers to whether we reject or accept that the analogy is a correct analogy, whereas effect refers to whether or not the counterargumentation provide a new conclusion. A *false analogy* counterargument rejects the original analogy by showing relevant differences between the source and the target case, arguing that the analogy is incorrect and has a destructive effect since it does not replace the criticized conclusion with a new one. A misanalogy refutes an analogy in the same

way as a false analogy but in showing the relevant differences also suggests a revised construal of the analogy which yields a new conclusion.

In the other two types (disanalogy and counter-analogy), according to Shelley, the analogy is accepted as a correct analogy, but the counterarguments operate by overriding the original analogy, through presenting further relevant data that motivate an alternative conclusion instead of the original one. While it is accepted that the analogy is correct, these two types operate on the principle that the analogy does not represent *all* information relevant to the conclusion. What Shelley calls "counter-analogy counterargument" is basically the same as Govier's "technique of counteranalogy" (see above); the difference is that Shelley asserts, contrary to Govier, that the effect of a counter-analogy is not to undermine the original analogy but to provide superior reasons for accepting an alternative conclusion (Shelley, 2004, p. 234). The disanalogy counterargument works in the same way. The difference, according to Shelley, is that counter-analogies add knowledge from a *different source domain* than the original argumentation, while disanalogies use the same source domain (Shelley, 2002b). Shelly also labels the "rebuttal analogy" as a counteranalogy, that is, an analogy used to rebut an analogical argumentation (Hoffman, Eskridge & Shelley, 2009, p. 139). This labeling may cause confusion since "rebuttal analogy" is often used as a method in which an argumentation is refuted by presenting a flawed parallel to it.

By which criterion should one classify these arguments as subtypes of analogical arguments? Shelley does not say. However, one feature stands out: they all *function* as counterarguments against other analogical arguments. They are a special kind of "analogy counterargument", or "analogical anti-analogical argumentation", that solely works against other analogical arguments and not against other types of arguments. Thus, I think that the most salient feature is the *refutative/criticizing function* against other analogical arguments. However, only disanalogy and counter-analogy are analogical arguments themselves; false analogy and misanalogy, although directed against analogical arguments, cannot themselves be characterized as analogical arguments.

Other examples of subtypes of analogical argumentation in which the author division is based on its criticizing function are Brewer's "argument by disanalogy" as well as Reidhav's division between "normative arguments from positive analogy" and "normative arguments from negative analogy", (Brewer, 1996, pp. 1006-1018; Reidhav, 2007, pp. 38-44). These appear to be identical with what Shelley labels "false analogy". Brewer also writes about "competing analogies" (Brewer, 1996, pp. 1012-1015) as common legal analogy argumentation, which is the same as the "counter-analogy counterargument" in Shelley's terminology (Shelley, 2004, 2002c). Brewer, however, sees "competing analogies" as a species of "argument by disanalogy" (i.e "false analogy" in Shelley's terminology).

Table 4. Shelley's classification of analogical counter-arguments.

Effect	**Orientation**	
	Reject	**Accept**
Destructive	False analogy	Disanalogy
Constructive	Misanalogy	Counter-analogy

Garssen's distinction between a descriptive and normative argument by analogy in which the latter operates by appealing to the principle of consistency is very similar to the classification of Govier and Guarini and some philosophers of law. The normative version has been subdivided into those arguments that appeal to the *principle of consistency* and those that appeal to the *principle of reciprocity* (van Eemeren et al., 2007, p. 139; Garssen, 2009). Still, Van Eemeren and Garssen do distinguish the subtypes by difference in function, in contrast to Guarini. The various labels of the subtypes are displayed in table 5.

Table 5. Analogical arguments distinguished by their difference in function.

Criterion for classification: function or purpose of analogy in argumentation									Author
Predictive function	**Supportive function**	**Classificatory function**	**Refutative function**			**Creative function**	**Pointing out common principle**	**Heuristic function**	
			Criticizing:						
			Arguments		**Claim/premise**				
			Not analogies	**Analogies**					
								Presumptive analogical argument[19]	Cummings (2004, 2014)
						Counter-factual analysis[20]			van Dormael (1990)
	Demonstrative reasoning by analogy					Non-demonstrative reasoning by analogy			Ippoliti (2006)
			Refutation by logical analogy	Counter-analogy					Govier (1985, 2010)
	Refutation by parallel argument		Refutation by parallel argument						Juthe (2009)
	Normative arguments from *positive* analogy				Normative arguments from *negative* analogy				Reidhav (2007)
Predictive analogical arguments		Classificatory analogical arguments							Guarini (2004)
Predictive analogy							Proportional analogy		Brown (1989)
Parallel case							Analogy		Ehninger and Brockriede (1963)
	By parity of reasoning		By parity of reasoning						Woods and Hudak (1989)
	Basic logical form		Refutation by logical analogy	Competing[21] analogies	Argument by disanalogy				Brewer (1996)
	A priori analogy		Counterexampling parallel arguments						Hitchcock (1992)
	Argument by analogy		Refutation by logical analogy						Copi (1990) Copi and Burgess-Jackson (1992)
			Rebuttal analogy						Whaley (1998); Whaley & Wagner (2000); Whaley & Holloway (1997); Whaley et al. 2015; Colston & Gibbs (1998) ; Colston (1999, 2000); Hoffman et al. (2009)
			Method of logical analogy						Krabbe (1996)
			Negative Analogy						Van Eemeren et al. (2007)
			Arguments by Parallels						Hugon (2007)
				Counter-analogy[22]					Shelley (2004)
				Disanalogy					
			Refutational analogy						Jansen (2007a, 2007b)

[19] This label is mine.

[20] Van Dormael never labels analogical reasoning, so the label is mine based on his analysis.

[21] Brewer's argument by disanalogy shows that two cases are dissimilar. Although it could be an indirect criticism of an analogy, is not *essentially* against other analogies. Competing analogies, on the other hand, assuming his description, are essentially anti-analogical, since they compete with another previous analogue showing it to be inferior compared to the new (competing) analogy.

[22] The reader may object that Shelley himself claims that a counter-analogy or disanalogy does not undermine analogies, and therefore should not be in the column that criticizes analogies. However, these analogical counterarguments are still *applied* to other analogies. That is, they say something negative *about* other analogies: that the analogies in question are not providing the most warranted conclusion. Thus, in a sense, they do have the function of criticizing analogies.

As the astute reader may notice, several of the arguments distinguished by the previous criterion (the "differ in status" criterion), could be classified by this criterion as well, as having either a classificatory, supportive or predictive function. The reason that they are not included this table is that the *author* of those arguments did not classify them with that criterion. As stated in the beginning, this review is primarily intended to display how different theorists *have* made distinctions of subtypes of argumentation by analogy, not to display how subtypes *could* or *should* be classified. If the position of an author is unclear or employs several criteria, however, I have incorporated them in several tables.

2.4. Logical Form

This criterion distinguishes the subtypes by reference to differences in the *intrinsic logical structure* or *differences in logical constants* of the argument scheme. The criterion can be defined:

> *Logical form* is the criterion employed for subdivision if and only if two analogical arguments are distinguished as two types based on whether they have contrasting logical form or logical constants.

By dissimilar "logical form", I mean that the inferences of the scheme flow in different directions, "different pathways of inference", or that the schemes have contrasting logical patterns, like the form of *modus ponens* differs from the logical form of *modus tollens* or the disjunctive syllogism. By "difference in logical constants" I mean both in the standard sense like truth-functional connectives and first-order quantifiers,[23] but also in a broader sense, the sense that the division is based on some kind of conceptual distinction between the arguments.

Henri Prade, Gilles Richard, and Laurent Miclet distinguish between three types of analogical reasoning (Prade & Richard, 2010, 2009; Miclet et al., 2011). The standard type of analogical reasoning is what they call analogical proportions, which are statements of the form *a* is to *b* as *c* is to

[23] For a discussion on how to determine the logical constants, see Warmbrod (1999).

d, which implies that the way *a* and *b* differ is the same as the way *c* and *d* differ.[24] The next type is the *reverse analogy*, which states that what *a* is to *b* is the *converse* of what *c* is to *d*. The third type is *paralogical proportion*, which states that what *a* and *b* have in common, so do *c* and *d*. These contrasting inferences are divided by virtue of having a separate logical form and employing different logical principles and/or "pathways of inference". For instance, analogical proportion utilizes (1) *reflexivity;* (2) *central permutation,* and (3) *symmetry,* while paralogical proportion utilizes (1) *bi-reflexivity*, (2) *even permutation,* and (3) *symmetry*. These cases of analogical reasoning are not clear-cut examples of argumentation by analogy. However, since they can at least be used as arguments in certain contexts, they are included in this work.[25]

Wreen distinguishes between two logical forms (neither of which corresponds to the logical forms distinguished by Prade and Richard) and argues that it is wrong to think that there are two different types of analogical arguments that share the same form. It is rather a spectrum of diverging argument schemes, with two clearly-identified contrasting logical forms at the end point of the spectrum (Wreen, 2007). Thus, according to Wreen, except in terms of logical form, there are no different "kinds" of arguments by analogy, only one scheme which can be expressed in two differing logical forms. According to Wreen, the received opinion among philosophers is that there are two kinds of argumentation from analogy, which apparently have the same form, but are categorized on the basis of propositional content (e.g., future-oriented or not), differing modes of epistemic access (e.g., *a priori* or empirical), epistemic function (e.g., prediction or classification), or strength of inference (e.g., inductive or non-inductive). The different forms Wreen simply labels Form *A* and *B* (Wreen, 2007, pp. 221-222, 227):

[24] These types of analogical inferences can be said to be analogical reasoning, and not specifically analogical *arguments*, since they are about the identity of two relations: a is to b as c is to d. However, since such reasoning could be part of an analogical argumentation, they are included.

[25] The reader may object that the same could be said of analogical explanations, but explanations may stand completely alone, being sufficient on their own. However analogical reasoning of proportion does usually not stand alone; it is usually part of either an analogical explanation or an analogical argumentation.

(Form A)

(1) X has characteristics a, b, c ….
(2) A has characteristics a, b, c….
(3) A also has characteristic x.
(4) A's having x is caught up with its having a, b, c…
(5) B has characteristics a, b, c…
(6) B also has characteristic x.
(7) B's having x is caught up with its having a,b, c….
… ……
… ……
(C) Therefore, X has characteristic x.

Form B:

(1) X has characteristics a, d, g….
(2) A has characteristics a, b, c.
(3) A has characteristic x.
(4) A's having x is caught up with its having a, b, c.
(5) B has characteristics d, e, f.
(6) B has characteristic x.
(7) B's having x is caught up with its having d, e, f.
(8) C has characteristics g, h, i.
(9) C has characteristic x.
(10) C's having x is caught up with its having g, h,
(11) ……
(12) (C) Therefore, X has characteristic x.

Wreen makes a critical examination of Barker's view as a backdrop in order to identify and clarify the second argument form (Wreen, 2007, p. 222). He has critical objections to Barker's classification. Barker did not base it on the ordinary dichotomy in the *type of inference* (deductive vs. inductive), but rather on a mixture of content of the conclusion (predictive vs. non-predictive) and the relation between premises and a conclusion (whether a conclusion goes beyond what is contained in the premises or not). Wreen's most important objection is that Barker's analysis does not result in any

argument scheme for the assumed categorically distinct type of argumentation by analogy which Barker claims is neither inductive nor deductive.[26] He suggests that, in reality, the other argumentation Barker sought was another *logical form,* which Wreen names 'Form B'.

Brewer discusses arguments by analogy in a legal setting where the main purpose of reasoning by analogy is to discover rules or to determine whether a rule applies or not (Brewer, 1996). According to Brewer, arguments by analogy utilize a reasoning process that belongs to a broad family of example-based arguments that are irreducible to argument from rules (i.e. ordinary inductive, deductive or abductive arguments) (Brewer, 1996, p. 983). The logical form of an analogy is thus (Brewer, 1996, p. 966, see also Weinreb's interpretation of the Brewer's logical form, Weinreb, 2005, p. 29):[27]

(1) z has characteristics F, G . . .

(2) x, y, also have characteristics F, G . . .

(3) x, y, also have characteristic H.

(4) The presence in an individual of characteristics F, G . . . provides sufficient warrant for inferring that H is also present in that individual. (AWR - Analogy Warranting Rule).

---

(5) Therefore, there is sufficient warrant to conclude that H is present in z.

This basic formula can be changed by modifying some premises into an inductive analogy (Brewer, 1996, p. 968):

(4') The presence in an item of F and G makes it (sufficiently) probable that H is also present (inductive analogy-warranting rule).

(5') Therefore, it is (sufficiently) probable that H is present in y.

[26] The other two objections of Wreen argue that several arguments which on Barker's definition are non-deductive are clearly inductive. However, his objection misses that they could be said to be *abductive,* which would avoid the objection.

[27] Weinreb's formulation is more concise and he also criticizes Brewer's position, arguing that his analogy warrants a rule nullifying the analogical part in the inference, making the argumentation deductive or inductive.

or into a analogy argumentation with a deductive step (Brewer, 1996, pp. 969-971):

(1") y has F and G.
(4") All items that have F and G also have H.

_____

(5") Therefore, y has H.

Brewer's "argument by *dis*analogy" has the following logical form (Brewer, 1996, p. 1010):

(1) x and y both have F;
(2) X has G;
(3) y does not have G (y has not-G);
(4) x also has H;
(5) any F is H unless it also has not-G (all things that are both F and G are H) (DWR – disanalogy-warranting rule)

_____

(6) Therefore, the presence of F and H in x does not provide a sufficient basis for inferring the presence of H in y.

Brewer's "argument by disanalogy" can be given in both a deductive and an inductive form similar to his ordinary "analogical argument". Ulrich Klug characterizes various types of analogical arguments (he also makes subdivisions by another criterion which is discussed in section [2.2.6]). First, there is analogical reasoning that proceeds from a precedent to a case which is very similar but does not obviously fall under a rule.[28] This is similar to Hage's case vs. case comparison (see section [2.2.9]). The second main type of analogical reasoning, according to Klug, is based on *proportion*, a relation between the terms and the predicates; it seems to be the same as what other authors have called "proportional analog*y*" or "analogical proportions". The third type is defeasible reasoning, a kind of imperfect "deductive reasoning" with the following scheme:

[28] The information on Klug's position is taken from Hage (2005) and Macagno and Walton (2009).

(1) M is P.
(2) S is similar to M (in virtue of the properties a, b, c. . .).

---

(3) Therefore S is P.

Peczenik has argued that the application of statutory analogy "analogia legis" is needed as a result of a gap in the law (Peczenik, 1971, 1989). According to him such an argument scheme should be constructed (Peczenik, 1989, p. 39; Peczenik, 1971, p. 331):

1. If the fact F or another fact, relevantly similar to F, occurs, then obtaining of G is obligatory
2. H is relevantly similar to F
3. If H occurs, then obtaining of G is obligatory

Peczenik asserts that there are two versions of *analogia legis* (P="decided in a way W"):

Direct version:

1. M ought to be P (a legal norm quoted).
2. C is S_M (means "essentially similar to M")

---

3. Hence: C ought to be P.

Indirect version:
1. M ought to be P.
2. X is S_M (means "essentially similar to M")

---

3. Hence: X and M ought to be P (a general principle)

It appears as if Peczenik bases his divisions on a logical criterion. The subtype "direct version" seems almost identical to Klug's analogical reasoning that proceeds from a precedent to a similar case, whereas the indirect version is strikingly similar to Klug's "imperfect deduction."

Gerhard Minnameier claims that there are two kinds of analogical inferences, which he never labels but can be labeled "abductive analogy" and "inductive analogy" because one of them appears abductive. Both types have an inductive part, but the inductions work in contrasting parts of the inferential processes and can be divided into two types because they represent different inferential paths (Minnameier, 2010).[29] Douglas Walton claims that there are two schemes of argumentation by analogy (Walton 2014) that seem to be distinguished based on a logical criterion. The difference between the schemes is that only one of them makes any reference to similarity, whereas the other is very "inductive". The basic argument scheme has in one of the premises a requirement that there is a similarity between the two cases (Walton, 2006, pp. 96-100; 2014, pp. 24-30; Walton et al., 2008, p. 56):

(1) Generally, case C1 is similar to case C2. (Similarity premise)
(2) A is true (false) in case C1. (Base premise)

---

(3) A is true (false) in case C2. (Conclusion)

The other scheme, according to Walton, is an inductive form of argumentation by analogy, which requires no reference to similarity, and can in that respect be sharply contrasted with the first scheme:

(1) A has attribute a, b, c and z.
(2) B has attributes a, b, c.

---

(3) Therefore, B probably has z also.

[29] It should be noted that these labels are mine and that Minnameier is an uncertain case, because it is unclear whether he thinks that analogical reasoning is a genuine category of reasoning of its own or whether it is a combination of inductive and abductive reasoning. Sometimes he gives the impression that builds on Peirce's suggestion that analogy is a combination of abduction and induction. If that interpretation is correct, then Minnameier thinks that analogical reasoning has two subtypes because the inductive and abductive reasoning can be combined in two dissimilar ways. For reasons of being inclusive, his subtypes are included.

Walton also maintains that one must use both these schemes in order to solve some philosophical and juridical problems.[30] The reader should note that the argument scheme Walton calls "inductive argument by analogy" is strikingly similar to what Brewer labels "basic logical form" of "argument by analogy", whereas that which Walton calls "basic scheme" is strikingly similar to what Klug calls analogical "defeasible reasoning" or "imperfect analogical deduction". However, Walton also proposes a scheme in which the notion of relevance is part of the scheme (Walton et al., 2008, p. 58):[31]

1) Generally, case C1 is similar to case C2. (Similarity premise)
2) The similarity between C1 and C2 observed so far is relevant to the further similarity that is in question.
3) A is true/false in case C1. (Base premise)

---

4) A is true/false in case C2. (Conclusion)

Having relevant similarity as part of the scheme is criticized by Brewer (1996, p. 933) because it is a too unclear concept. Bipin Indurkhya talks about three types of analogy (Indurkhya, 1989, 1992). First there is analogy by rendition, which is when a creative act abstracts similarities between objects which did not exist prior that act. It is to place a certain perspective on two different objects so that one can perceive them as having similarities although this is only a subjective projection. Thus, a new level of description is created.[32] Secondly there is "proportional analogy", which refers to

[30] It is ambiguous what criterion Walton has as ground for the distinction. However, taking into account a number of his writings and in particular his later writings, I have the impression that the most justified criterion would be "logical form".

[31] It seems difficult to discern the criterion for the division between this and his "basic scheme". Since it uses contrasting concepts I presume that a logical distinction is a good suggestion.

[32] Indurkhya gives this example: "It was not that the researchers first noted some similarities between the paintbrush and the pump, and then imported more features from pump to paintbrush; but rather the act of viewing the paintbrush as a pump created the similarities - similarities that were not there before".

relations having the form "A is to B as C is to D", as in "gills are to fish as lungs are to man." Thirdly, there is "predictive analogy", which involves concluding that there are further similarities between two objects or situations based on some actual similarities.[33] He also calls this analogical inference and analogical reasoning. It is doubtful whether these distinctions regard analogical argumentation in contrast to other kinds of analogical reasoning. However, for the sake of completeness they are included since nothing prevents their being used in an argumentative manner. The reader should note that Indurkhya's divisions are almost identical to divisions made by other authors (see the subtypes by Henri Prade, Gilles Richard, and Laurent Miclet in section [2.4]), although these other authors have used the function or status of the analogue to make the divisions. The various proposed subtypes can be seen in Table 6.

[33] Although Indurkhya admits that analogy pervades our thinking, he denies that any true justification can ever be found for predictive analogy. He even thinks that predictive analogy may hinder cognition by preventing one from seeing things as they are.

Table 6. Analogical arguments distinguished by their different logical form.

Criterion for classification: logical form of argument															Author
				Form A	Form B										Wreen (2007)
											Argument by disanalogy[34]		Basic logical form		Brewer (1996)
											Inductive disanalogy	Deductive disanalogy	Inductive analogy	Deductive analogy	
							Paralogical proportion	Reverse analogy		Analogical proportion					Prade and Richard (2010); Miclet, et al. (2011)
						Analogy by rendition[35]	Predictive analogy[36]			Propor-tional analogy					Indurkhya (1989), Indurkhya (1992)
Reasoning from rule to similar case									Imperfect analogical deduction	Analogy based on proportion					Klug (See Walton et al. (2008)
Analogia legi Direct version	Analogia legi Indirect version														Peczenic (1989; 1971)
		Abductive analogical inference Inductive analogical inference	Abductive analogical inference Inductive analogical inference												Minna
									Basic scheme					Inductive argument from analogy[37]	Walton et al. (2008); Walton (2012, 2014)

[34] Brewer never explicitly defines any "argument by inductive disanalogy", but it seems clear that a version of this could be formulated following the same line of thinking *mutatis mutandis* with the argument by deductive disanalogy.

[35] This is also labeled "interpretive analogy".

[36] This is also labeled "analogical inference".

[37] This label is mine, Walton never really labels the argumentation. His argumentation could arguably also be classified on basis of logical form, see section [2.2.4]. Sometimes Walton uses the term "basic scheme".

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El argumento de la forma: la narración como prueba, escenografía y campo de despliegue de las formas tópicas

The argument of form: narration as proof, scenography and setting of topical forms

Pablo Porto López

Universidad de Buenos Aires, Buenos Aires, Argentina
pabloportolopez@gmail.com

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Resumen: El trabajo aborda el modo en que se articulan los diferentes niveles del discurso en la argumentación, entendida como una práctica relacionada estrechamente con lo retórico. Se procede a partir de un análisis de caso que comprende dos comentarios de lectores publicados en un periódico *online*, en los que se discute una noticia que presenta un programa de computación capaz de escribir relatos, fábulas específicamente, de manera automática a partir de una serie de parámetros preestablecidos. Combinando nociones de teoría de la argumentación, lingüística textual y teoría de la enunciación, se analiza el modo en que el primer comentario responde a la noticia a través de una operación de imitación del relato original de la computadora reproducido en el periódico; mientras que el segundo comentario, que asume asimismo la forma de un relato, en la medida en que lo hace no ya para responder a la noticia sino para rebatir el primer comentario, adquiere características de género (discursivo) distintas que funcionan de manera solidaria con la argumentación en el nivel de las formas tópicas que despliega. El caso resulta propicio para observar los vínculos entre la configuración textual (narrativa en este caso) que puede asumir la argumentación, los contenidos y *topoi* convocados a nivel de los enunciados, y el acto argumentativo global entendido como 'movida' dentro de un intercambio discursivo determinado.

Palabras clave: Argumentación, escenografía enunciativa, formas tópicas, *quaestio*, relato.

Abstract: This paper deals with the way that different levels of discourse are articulated in argumentation, here considered to be a practice that is closely related

to rhetoric. We will be concerned with the analysis of a case that includes two readers' comments published in an online newspaper, which discusses a news article that presents computer software capable of automatically writing stories -more specifically fables- by using a series of preset parameters. By combining notions drawn from argumentation theory, text linguistics and enunciation theory, we analyze the way in which the first comment responds to the piece of news through an operation of imitation of the computer's original story as reproduced in the newspaper; while the second comment, which also assumes a narrative form, not as a response to the news but to rebut the first commentary, acquires different genre-related characteristics that work in a coherent fashion with the argumentation displayed at the level of the topical forms. The case allows us to take note of the links that exist between the textual configuration (narrative in this case) that the argument can assume, the contents and *topoi* realized at the level of the phrases or statements, and the global argumentative act understood as a 'move' within a certain discursive interaction.

Keywords: Argumentation, enunciative scenography, topical forms, *quaestio*, narrative.

1. Introducción

La concepción clásica de la argumentación sostiene que se está frente a un argumento cuando puede establecerse una relación entre dos segmentos de discurso de los cuales uno, la(s) premisa(s), es la justificación de otro, la conclusión. La dimensión argumentativa de los discursos, sin embargo, ha sido analizada más recientemente en diversos niveles de complejidad, que van desde unidades inferiores a la proposición hasta la argumentación entendida como práctica comunicacional. Así, se ha abordado lo argumentativo en la composición de los enunciados individuales y hasta en las palabras mismas (Anscombre & Ducrot, 1994); en la articulación de las secuencias proposicionales –el nivel más cercano a la concepción tradicional– (Adam, 1992, 1995; Toulmin, 2007) y la configuración textual global (Adam, 1992); y se ha estudiado la argumentación como un componente fundamental de los intercambios comunicacionales más vastos, en donde el paquete propiamente discursivo se aprehende en un contexto de interacción, es decir, en una situación de intercambio que puede ser conceptualizada en términos dialógicos, en la que el discurso se inserta como una movida argumentativa (Meyer, 2013; Plantin, 1993; Ryan, 1993; van den Hoven, 2011).

El presente trabajo se propone analizar argumentativamente dos res-

puestas a un artículo del periódico inglés *The Guardian*; más precisamente, se trata de dos comentarios de lectores, el primero de los cuales surge como reacción directa al contenido de la noticia, y el segundo como respuesta al primer comentario. La interacción argumentativa, tal como la concibe Plantin, consiste en una confrontación discursiva en la que a partir de una misma pregunta se postulan respuestas divergentes o incluso antagónicas. Cuestión y contradiscurso, para esta perspectiva, son los elementos que estructuran la praxis argumentativa. En un sentido similar, Meyer afirma que la retórica no es otra cosa que "la negociación de la distancia entre individuos a propósito de una cuestión dada" (2013, p. 26); y negociar esa distancia consiste en tratar discursivamente la diferencia que existe entre ambas instancias (ethos y pathos, enunciador y enunciatario, proponente y oponente) respecto de esa cuestión común que los convoca y los enfrenta. Así, señala Plantin que una situación de lenguaje comienza a incursionar en el terreno de lo argumentativo tan pronto se hace manifiesta una oposición discursiva, y que esta "interacción es plenamente argumentativa cuando dicha diferencia es problematizada en una Cuestión, y surgen los tres roles actanciales de Proponente (apoyando plenamente una Proposición) de Oponente (rechazando esa Proposición) y de Tercero (interrogándose sobre ella)" (2002, p. 230. La traducción es mía). Los dos comentarios que se analizarán a continuación construyen puntos de vista en conflicto acerca de la cuestión que pone sobre la mesa la nota del periódico, a saber: ¿pueden las computadoras crear relatos? Y la particularidad de las respuestas que brindan los lectores reside en que ambas se estructuran, a su vez, motivadas por el tema de la noticia, como relatos.

A partir del tratamiento de esta cuestión, el antagonismo entre las respuestas de los comentarios resulta no ser simétrico en los diferentes niveles discursivos de análisis que consideraremos: el enunciado individual, las secuencias proposicionales, el texto en su conjunto y la situación de interacción comunicativa global. Al mismo tiempo, los procedimientos discursivos por medio de los que cada argumentación construye su punto de vista, tienen consecuencias sobre los parámetros a partir de los que la cuestión común o *quaestio* es definida y producen deslizamientos que pueden no ser advertidos ni explicitados por los participantes. Es por ello que el presente análisis se enmarca en la siguiente *doble hipótesis*: i) los aspectos formales del discurso, como el género, la escenografía y el estilo, responden

al punto de vista defendido, por lo que resultan centrales en el análisis de la argumentación, y ii) el tratamiento de la cuestión argumentativa y los desplazamientos de los que es objeto en una interacción, permiten analizar el valor argumentativo de aquellos aspectos formales.

Esta hipótesis de trabajo supone que los diversos niveles de discurso se encuentran relacionados de manera orgánica y no pueden pensarse de manera disociada, más allá de la operación de abstracción (analítica) que los distingue. De allí la referencia del título de este trabajo al libro de Hayden White, *El contenido de la forma* (1990). White señala allí que la narración no es una forma vacía que pueda ser simplemente "llenada" por diversos contenidos, sino que "posee un contenido previo a toda actualización" (p. xi). Extendiendo esta tesis,[1] postulamos que el uso de la narración (y de un género narrativo específico) para expresar los argumentos impone constricciones, al tiempo que también abre un abanico de posibilidades, respecto de los recursos argumentativos empleados en cada uno de los niveles señalados, incluso en los de menor complejidad como el enunciado; niveles que, no obstante, conservan reglas de funcionamiento propias, irreductibles las unas a las otras.

2. "Una computadora programada para escribir sus propias fábulas"

El titular de la noticia enuncia sin matices el tema que desarrollará el artículo: la creación de un nuevo software que permite la generación automática de fábulas, con moraleja incluida. El sistema, que fue desarrollado por investigadores de la Universidad de Nueva Gales del Sur en Australia, permite al usuario elegir entre seis tipos de moraleja –venganza, orgullo o recompensa, entre otras–, y luego determina de manera automática una secuencia de eventos adecuada para representarla narrativamente.

El artículo del periódico explica cuáles son las variables según las que se rige el programa: "las historias se estructuran alrededor de personajes que

[1] En un sentido, sin embargo, algo diferente al de White quien se refería sobre todo a la búsqueda de coherencia global y de sanción moral en la reconstrucción de los hechos reales sobre los que trabaja la narrativa histórica.

pueden experimentar hasta 22 emociones, desde alegría hasta piedad, remordimiento y gratitud, en tres mundos ficcionales diferentes" (*The Guardian*. La traducción es mía). La principal dificultad reside, según señala a *The Guardian* la directora del proyecto de investigación, en incorporar a la elaboración de las historias cuestiones básicas del sentido común; por ejemplo, el hecho de que desde el momento en que A da una cosa a B, B estará en posesión de dicha cosa, resulta evidente para una persona, pero debe ser explicitado e introducido en la programación de la computadora como una secuencia de reglas. En referencia a las limitaciones operativas de este tipo de programas en general, la directora del proyecto sostiene que se está aún lejos de que las computadoras puedan hacer contribuciones significativas a la literatura, si es que alguna vez llegan a hacerlas.

Como cierre de la noticia se incluyen dos ejemplos de historias generadas por medio de este programa de computación, transcribimos una ellas en su totalidad a continuación:

> Recompensa (i.e. el dragón es recompensado por dar el tesoro a la princesa):
> Había una vez un dragón, un hada y una princesa. El dragón odiaba al hada. Una mañana de verano, el dragón le dio el tesoro a la princesa. Como resultado, la princesa tenía el tesoro. La princesa sintió alegría por tener el tesoro. La princesa sintió gratitud hacia el dragón por haberle dado el tesoro porque ella tenía el tesoro. El hada y la princesa comenzaron a amar al dragón. Poco tiempo después la princesa mató al hada. Como resultado, el hada estaba muerta. El dragón sintió alegría de que el hada estuviera muerta. El dragón sintió gratitud hacia la princesa por haber matado al hada porque el hada estaba muerta.*

* "Reward (i.e. the dragon is rewarded for giving the treasure to the princess): Once upon a time there lived a dragon, a fairy and a princess. The dragon hated the fairy. One summer's morning the dragon gave the treasure to the princess. As a result, the princess had the treasure. The princess felt joy that she had the treasure. The princess felt gratitude towards the dragon about giving the treasure to her because she had the treasure. The fairy and the princess started to love the dragon. A short time later the princess killed the fairy. As a result, the fairy was dead. The dragon felt joy that the fairy was dead. The dragon felt gratitude towards the princess about killing the fairy because the fairy was dead."

2.1. La respuesta tecnófoba

El primer comentario de lector (Discurso 1 o D1) publicado en el sitio web del *Guardian* surge como una respuesta directa a la tesis planteada por el artículo que afirma la existencia de una nueva computadora capaz de escribir sus propias fábulas. Esta respuesta del lector se estructura, a su vez, en forma de fábula:

> 1[Había una vez unas personas que olvidaron cómo contarse historias. Eran personas muy ricas, pero también personas muy tristes.] 2[Se pasaban todo el día mirando pequeñas pantallas esperando encontrar algo de felicidad, pero nunca llegaba. Habían olvidado cómo hablar.] 3[Un día, alguien inventó una caja mágica que crearía historias por ellos y ya no tendrían que imaginarlas ellos mismos. Estaban todos muy contentos por la noticia puesto que podrían concentrarse ahora en obtener ese ascenso en el trabajo.] 4[Pero conforme pasó el tiempo, los niños pequeños dejaron de sonreír a la caja mágica cuando ésta les contaba historias. Los adultos se dieron cuenta que no era mágica en absoluto, y que no podía ser construida con una máquina. Se dieron cuenta que la magia estaba en ellos, y comenzaron nuevamente a crear historias y todos los niños comenzaron a sonreír y a reír otra vez.][*]

El gesto de base de D1 reside en una acción global de discurso: la elección de la *escenografía* (Maingueneau, 2002). D1 está estructurado como un relato, específicamente como una fábula, dentro de una *escena englobante* que corresponde al discurso periodístico y de una *escena genérica* que es la del comentario de lector (o su homólogo, mucho menos estructurado, de Internet). Como gesto derivado directamente de la *quaestio*, D1 tiene un objetivo argumentativo insoslayable: incorpora el tema de la noticia

[*] "1[Once upon a time there was a people who forgot how to tell themselves stories. They were a very wealthy people, but also a very sad people.] 2[They stared all day at little screens hoping to find some happiness, but it never came. They had forgotten how to talk.] 3[One day, someone invented a magic box that would make up stories for them and they wouldn't have to dream them up themselves anymore. They were all very happy at the news as they could concentrate on getting that promotion instead.] 4[But as time went on, the little children stopped smiling at the magic box when it told them stories. The grownups realized that it wasn't magic at all, and that it couldn't be constructed with a machine. They realized that the magic was in them, and they started making up stories again and all the little children started to smile and laugh again.]"

(máquinas que escriben historias) a nivel de lo narrado, utilizando el mismo género que la computadora (la fábula). Pero al hacerlo muestra una versatilidad mucho mayor que la máquina, cuyos esfuerzos pueden caracterizarse todo lo más como rudimentarios (repeticiones, mención de obviedades, desplazamientos de sentido en los que las princesas matan a las hadas por amor a los dragones).[2] Al adaptar el género fábula a la situación particular de la que trata el artículo, el propio acto de narrar se convierte en una prueba de lo que sostiene a nivel de lo narrado: las máquinas no podrían jamás reemplazar la creatividad del hombre. Señala Maingueneau que el lector nunca se enfrenta directamente con el texto, sino que lo hace mediado por la construcción escenográfica que instituye la escena de habla que lo interpela. Pero aquí el propio modo de expresión de los argumentos *es* una prueba[3]. La refutación del punto de vista sostenido en la noticia (o sugerido por algunos pasajes de la misma) se da por y a través del mismo acto de enunciación de D1: la creación de una historia por parte de un ser humano que engloba al relato objeto para descalificarlo (tanto el relato de la máquina en sí como, por contigüidad, el artículo periodístico que lo presenta como un avance).

Esta operación tiene a su vez un sustrato lúdico, que adopta la forma de "boomerang", pues de algún modo emplea la palabra del otro (la fábula) en su contra. Operación que funciona asimismo como argumento a favor de la conclusión hacia la que se orienta D1: al emplear el mismo esquema narrativo que la computadora, configura una suerte de "duelo de narradores", como se da en ciertos géneros musicales como la payada o el rap, en el que tiene lugar una competencia de habilidades entre dos intérpretes. El acto central de D1 consiste en tomar una performance discursiva e incluirla en el esquema del duelo o la justa (gesto que no pasará desapercibido para el segundo comentario y que será retomado por él). El hecho de que D1 pueda

[2] Este tipo de desplazamientos e inversiones ha sido explorado en películas como *Shrek* a la manera de una sátira de los cuentos de hadas, lo que a todas luces no es el caso en las fábulas creadas por la computadora de la noticia.

[3] Desde luego, se trata de una situación especial que, por ser referida justamente a la capacidad narrativa de las computadoras en relación con la de los hombres, hace posible al autor de D1 ofrecer su relato en un gesto ostensivo en tanto que una prueba a propósito de la cuestión que la suscita, de un modo similar al que lo sería una evidencia de cualquier tipo (una fotografía, un arma) en un juicio.

interpretarse como una respuesta directa a la computadora, construida así directamente como antagonista, es consistente con la historia (diégesis) del relato, en la que las máquinas se representan como reemplazo de la imaginación narrativa del hombre. Los relatos de las máquinas y los del hombre se postulan allí como mutuamente excluyentes; es sobre esta conclusión de D1 que D2 estructurará a su turno, para a refutarla, una nueva respuesta.

Habiendo establecido el contexto discursivo y la estrategia argumentativa global, es posible descender en el análisis de los enunciados particulares que componen el comentario. Dividimos el relato en cuatro lexias[4] (L1 a L4), en las que identificaremos las formas tópicas[5] aplicadas, de modo de observar cómo se plasma en el nivel del enunciado y del contenido de lo narrado este gesto argumentativo implicado en la elección escenográfica.

[4] Término utilizado por Roland Barthes en *S/Z* para su análisis de Sarrasine de Balzac. Para Barthes, las lexias son unidades de lectura cuya extensión varía de acuerdo a la comodidad del analista y a la densidad de sentidos presentes en los fragmentos del texto a analizar: "La lexia no es más que la envoltura de un volumen semántico, la cresta del texto plural, dispuesto como un banquete de sentidos posibles (aunque regulados, atestiguados por una lectura sistemática) bajo el flujo del discurso" (2004, p. 10).

[5] Todo encadenamiento discursivo se efectúa, para Ducrot y Anscombre, a través de la aplicación de principios de carácter general: los *topoi*. Así, la significación de las frases e incluso la de las palabras se reducen a los *topoi* que éstas autorizan a emplear: "el valor semántico de las frases está en permitir e imponer la adopción, de cara a los hechos, de puntos de vista argumentativos" (Anscombre & Ducrot, 1994, p. 207) y no en proveer informaciones objetivas sobre los hechos mismos. El *topos* se relaciona con la noción de garantía en el modelo de Toulmin (Anscombre & Ducrot, 1994, p. 217; Anscombre, 1995, p. 301), pues es el tercer término que autoriza el paso A → C; pero no vincula, en la teoría de Ducrot y Anscombre, a los hechos entre sí ni involucra inferencias deductivas de naturaleza lógica. Antes bien, los autores sostienen que en el nivel mismo de las frases (lingüístico) existen instrucciones sobre los *topoi* que son pasibles de ser empleados en cada caso, y la función específica de los *topoi* consiste en establecer una relación de correspondencia entre dos escalas no numéricas: "Hace calor. ¡Vayamos a la playa!", es uno de los ejemplos preferidos por Ducrot y Anscombre. Pero no sólo los predicados tópicos son escalares, sino que la relación entre ambos es gradual: cuanto más calor hace, más agradable resulta ir a la playa. Conforme nos movemos ascendentemente en una escala (calor), nos movemos en el mismo sentido en la otra (agrado). Esta relación, (+CALOR, +AGRADO), y la complementaria (-CALOR, -AGRADO), constituyen lo que Anscombre y Ducrot denominan una forma tópica (FT). También encontramos FT conversas que recorren las escalas en sentido inverso: (+P,-Q) y (-P, +Q); por ejemplo "Hace demasiado calor, no iré a la playa" (+CALOR, -AGRADO). La noción de FT permite colocar sobre un terreno continuo y homogéneo la argumentatividad de las palabras y la de las frases. La aplicación de las FT a una situación es, para Ducrot y Anscombre, la función esencial de los discursos: "discurrir acerca de una estado de cosas, es, ante todo, aplicarle formas tópicas (FT), y hacer que entre en esas FT" (1994, p. 221).

En el relato de D1 el problema inicial consiste en la ausencia de historias o, más precisamente, en el olvido de cómo crearlas. La forma tópica que encontramos al comienzo del relato puede expresarse como (-HISTORIAS, -FELICIDAD), y se la identifica a partir de lo enunciado en las dos frases que integran L1: "Había una vez unas personas que olvidaron cómo contarse historias. Eran personas muy ricas, pero también personas muy tristes". En la segunda frase, encontramos la FT (+RIQUEZA, +FELICIDAD), esta forma tópica obliga a incluir el operador *pero* para coordinar *+Riqueza* con *-Felicidad*. La argumentación va en contra de la orientación comúnmente aceptada de que la riqueza material genera felicidad: son ricos y, a la vez, están tristes; de allí la necesidad del conector contra-argumentativo *pero*. Según la teoría polifónica de la enunciación, el *locutor* pone en escena dos *enunciadores*: E_1 aplica la FT (+RIQUEZA, +FELICIDAD), y luego hace intervenir el punto de vista de un segundo enunciador, E_2, que arriba a la conclusión contraria (-FELICIDAD), con la que se identifica el locutor. Dado que el único elemento adicional que se introdujo en el relato es, en la primera oración de L1, el olvido de cómo contar historias ("Había una vez unas personas que olvidaron cómo contarse historias"), la razón para la ausencia de *felicidad* tiene que explicarse por ese *olvido*, el cual es un argumento más fuerte en contra de la *felicidad* de lo que lo es la *riqueza* a favor de ésta (la fuerza argumentativa está indisolublemente ligada aquí a la concepción gradual del *topos*). Esta escala es el núcleo del argumento de D1: la búsqueda de la felicidad en lo material, clase dentro de la que se sitúan las máquinas pero no así las historias, aparece como algo quimérico y destinado, en última instancia, a generar insatisfacción y desengaño. El *topos* (extrínseco) utilizado, entendido como frase genérica o incluso como proverbio (Anscombre, 1995) podría expresarse como "el dinero no hace la felicidad".

En la segunda lexia (L2) se disocia la tecnología de la felicidad, por medio de la puesta en escena del fracaso en hallar felicidad en las pantallas. Incluso se construye a la tecnología como opuesta al lenguaje, porque el constante *mirar* a las pantallas hace que los humanos olviden cómo *hablar*: de la oposición entre mirada y habla, se arriba a la otra dicotomía entre pantalla y lenguaje; y aquí las máquinas aparecen como una causa de ese olvido de cómo hablar. L3 introduce una solución a la carencia, para expresar la operación en términos del análisis estructural de los relatos,

que luego se revelará como una solución sólo aparente o una falsa solución. La "caja mágica" hace posible continuar en la búsqueda de riqueza (concentrarse en el ascenso laboral): la tecnología y la riqueza están aquí co-orientadas argumentativamente. Finalmente, en L4 tiene lugar la oposición fundamental entre tecnología y magia ("se dieron cuenta de que no era mágica en absoluto") como algo esencialmente humano ("la magia estaba en ellos") o, al menos, no-tecnológico. La sonrisa de los niños es lo que sanciona simbólicamente la autenticidad de la solución hallada y opone los dos momentos de *solución aparente* y *verdadera solución*: T_0) "los niños pequeños dejaron de sonreír a la caja mágica cuando ésta les contaba historias", y T_1) "comenzaron nuevamente a crear historias y todos los niños comenzaron a sonreír y a reír otra vez". El relato se resuelve en L4, donde el objeto de deseo, que es la felicidad (externalizada en la sonrisa de los niños), es alcanzado por medio de la creación de historias por los propios hombres sin la mediación de la tecnología.

La estructura de la fábula puede exponerse de acuerdo a los componentes de la secuencia narrativa tal como la concibe Adam (1992): i) *situación inicial* (no aparece narrada pues el relato comienza con una situación de desequilibrio y correspondería a la situación previa al olvido), ii) *complicación* (olvido de cómo contar historias) – *reacción* (invención de la "caja mágica") – *resolución* (fracaso de la "caja mágica" y regreso a la creación de historias por parte de los hombres), iii) *situación final* (felicidad de los niños) y iv) *evaluación moral* (la magia está en los hombres, no en la tecnología). La evaluación moral en la fábula, en términos de Adam, corresponde a una macrosecuencia argumentativa que integra o subordina a la secuencia narrativa.

En D1 el rol actancial de la tecnología como ayudante para la consecución del objeto de deseo, la felicidad, es rechazado; e incluso la tecnología queda identificada con el lugar del oponente, si se la considera como falsa solución pero sobre todo como la causa por la que los hombres olvidaran cómo contar historias (e incluso cómo hablar) en un primer momento. Como ha sido señalado, el antagonismo hombre/tecnología se escenifica asimismo a nivel global de la situación de intercambio, en donde la respuesta de D1 en forma de relato es una prueba del punto de vista sostenido pero también un desafío a la máquina como contrincante discursivo. Esa

oposición tiene su correlato a nivel textual en el rol actancial de la máquina como oponente y, a nivel de las frases, en las formas tópicas empleadas para colocar a la tecnología como contra-orientada argumentativamente a la felicidad y a lo propiamente humano.

2.2. La respuesta tecnófila

Además de emplear el mismo género, la fábula, D1 efectúa una imitación estilística del relato construido por la computadora. En términos de Genette (1989 [1982]), se trataría de un pastiche satírico puesto que se expresan rasgos genéricos y estilísticos del hipotexto que cumplen, entre otras, la función de ridiculizarlo. Realizar esta operación supone la capacidad de manipular reglas o gramáticas generativas a nivel metanarrativo, un modelo de competencias genéricas capaz de engendrar performances miméticas; por eso, Genette sostiene que la *imitación* es una operación hipertextual más compleja que la *transformación* (propia de la parodia y el travestimiento). D1 pone en juego desde fórmulas propias del género fábula como el "había una vez" (que también es el comienzo del texto de la máquina), hasta cuestiones relativas a lo estilístico, que en este caso remiten también a marcas de oralidad, como las frases cortas, las repeticiones o la colocación del sujeto al comienzo de cada oración (Ong, 2006). Por más importantes que todos estos elementos sean en D1, no los encontramos, en cambio, en el segundo comentario (D2): su respuesta ya no puede consistir en una imitación de la escritura de la máquina.

Y es que la narración de D2 no es ya una prueba en sí misma como lo es en D1. A nivel de lo relatado, puede proponer una situación que oriente argumentativamente hacia la conclusión opuesta respecto de la de D1 y, si bien no exactamente igual que la del artículo, sí más cercana a ella. Sin embargo, el uso del relato y del género fábula como prueba de la habilidad superior del ser humano (aplicación de la estructura narrativa a situaciones nuevas y de formas creativas), no puede ser respondido ni desactivado por D2 por un movimiento equivalente o simétrico. Sí se puede, en cambio, responder a nivel de lo narrado, y construir un escenario alternativo que conduzca a una conclusión diferente:

> Un día, muchos años después, uno de los niños, que era extraordinariamente curioso, preguntó a un adulto cómo funcionaba realmente la magia. "¿Vamos a descartarlo con la palabra 'magia'?" preguntó el precoz mocoso. "Porque parece bastante pobre (*lame*). Tal vez si nos ocupamos del problema de cómo las historias se construyen podríamos obtener un poco más de conocimiento acerca de nuestras propias mentes".
>
> "Tienes toda la razón", dijo un adulto. "Y también sería interesante en sí mismo. Podríamos incluso encontrar algo extremadamente útil pero inesperado en el camino. Ya sabes, como el Blu-Tack (tachuela azul),[6] o el bubble-wrap (empaque de burbujas)".
>
> Así que se fueron y jugaron con la inteligencia artificial por un rato, y a decir verdad la mayor parte de la gente no se dio cuenta, porque el hecho de que algunos estuvieran haciendo eso no quería decir que todos tuvieran que hacerlo, y el planeta no se convirtió repentinamente en UN MUNDO FELIZ.*

La finalidad persuasiva que persigue el uso del relato en el segundo comentario es completamente diferente a la de D1. Aquí, lo que rige la construcción narrativa no es la imitación del estilo de la máquina y ni siquiera la elección del género fábula tradicional, pues se elige una forma narrativa que podría considerarse similar a la fábula pero que presenta, en definitiva, un desenlace inesperado, al estilo de las fábulas de Stevenson. En tanto que el peso del argumento pasa a residir en el mundo representado del relato y en las ideas que allí se vehiculizan, la técnica narrativa se dirige hacia la producción de un efecto de verosimilitud, acompañado de una mayor

[6] El Blu-Tack, una masilla adhesiva utilizada para fijar objetos livianos, fue creado inesperadamente por un investigador que trabajaba en el desarrollo de un adhesivo industrial para una compañía inglesa. El producto resultó no ser lo que se buscaba originalmente, pero su plasticidad y la posibilidad de ser reutilizado lo hicieron apto para otras finalidades como sustituto de las tachuelas o la cinta adhesiva.

* "One day some years later, one of the children, who was unusually curious, asked a grown-up how the magic actually worked. "Are we going to just hand-wave it away with the word 'magic'?" asked the precocious tyke. "Because that seems kind of lame. Maybe if we apply ourselves to this problem of how stories are constructed we might gain a bit more insight into our own minds?" "You're absolutely right," said a grown-up. "And it would also be interesting for its own sake. We might even find out something extremely useful, but unexpected along the way. You know, like Blu-tack, or bubble-wrap." So they went off and played with artificial intelligence for a while, and in truth most people didn't notice, because the fact that some people were doing that didn't mean that everyone had to, and the planet didn't suddenly turn in to BRAVE NEW WORLD. "

complejidad conceptual. Por ello, D2 se sirve de otros recursos narrativos: no comienza con el "había una vez", tiene frases largas y complejas, hasta incluye la mímesis de un diálogo.[7] Lo oral se integra bajo la forma del diálogo, y no en la cadencia ni la sintaxis de la narración. Se trata de recursos literarios que tienen que ver más con lo novelístico que con las fábulas o los cuentos infantiles (si bien es cierto que las fábulas de La Fontaine incluían escenas dialogadas). Y es así porque aquí el relato, pese a no constituir una prueba en el sentido en que lo es D1, es de todos modos utilizado argumentativamente por D2. Los medios, sin embargo, son otros, y la finalidad de ese uso argumentativo también es otra: no ya responder a la máquina sino al hombre, y a aquello que aparece al nivel de lo representado en el relato de D1. Para eso, D2 se vale de recursos que hacen a la historia narrada más verosímil y suficientemente compleja según los parámetros de la literatura.

Para abordar el despliegue del campo tópico en D2 como opuesto al de D1, esquematizaremos dos argumentos claves de D1 (no reproduciremos aquí un análisis según el esquema completo de Toulmin o las reelaboraciones posteriores hechas por Adam, aunque sería perfectamente factible hacerlo). El primer argumento emerge cuando se considera la relación que mantienen la primera y la tercera frase de L4 en D1: "Pero conforme pasó el tiempo, los niños pequeños dejaron de sonreír a la caja mágica cuando ésta les contaba historias. . . Se dieron cuenta de que la magia estaba en ellos, y comenzaron nuevamente a crear historias y todos los niños comenzaron a sonreír y a reír otra vez". Como se dijo antes, la *magia* en D1 es un elemento que representa "lo humano" como opuesto a "lo maquínico", y como la verdadera respuesta (no meramente aparente) para alcanzar la felicidad. ¿Por qué han dejado de sonreír los niños? Pues porque se ha dado la espalda a la magia, a lo propiamente humano, acto que aparece representado por el cese de la creación de historias por parte de los hombres. ¿Por qué recuperan los niños su sonrisa? Porque los hombres vuelven a crear sus propias historias. El argumento podría reconstruirse como sigue:

[7] El hecho de que comience con "unos años más tarde" no debe engañarnos. Si por esta locución D2 se propone como una prolongación de la historia de D1, la diferencia entre ambos relatos es palpable tanto a nivel genérico como estilístico (pese a que se conserve al niño, al adulto y a la "caja mágica" como los personajes y elementos centrales de la historia).

Las cosas que nos hacen humanos son irrenunciables (garantía)
Contar historias nos hace humanos (dato)
Contar historias es algo irrenunciable (conclusión)

Esta secuencia argumentativa se articula con otra fundamental para que la diégesis en D1 se desenvuelva por el cauce que lo hace, la cual aparece expresada en la primera frase de L3: "Un día, alguien inventó una caja mágica que crearía historias por ellos y ya no tendrían que imaginarlas ellos mismos". Así, según D1, si dejamos que las máquinas hagan historias renunciamos a crearlas nosotros. Se convoca aquí un *topos extrínseco* que podría expresarse en frases genéricas tales como "cuando algo puede hacerse de forma automática ya no hay por qué hacerlo manualmente" o "aquello que el hombre delega en la máquina deja de hacerlo él mismo":

Si algo puede ser hecho por una máquina, entonces ya no lo hará el hombre (G)
Las historias pueden ser hechas por las máquinas (D)
Las historias no las hará hombre (C)

Es este segundo argumento el que, a su turno, es refutado por el final del relato en D2: "a decir verdad la mayor parte de la gente no se dio cuenta, *porque el hecho de que algunos estuvieran haciendo eso no quería decir que todos tuvieran que hacerlo*, y el planeta no se convirtió repentinamente en UN MUNDO FELIZ" (el subrayado es mío)[8]. Lo que hace D2 es rechazar la premisa mayor (la *garantía* en términos de Toulmin y el *topos* de Ducrot y Anscombre) del segundo silogismo reconstruido de D1; puesto que sostiene que el hecho de que las máquinas realicen por sí mismas una "tarea humana" (crear historias, pensar) no tiene por qué conducir necesariamente a que los hombres dejen de hacerlo ellos mismos. D1 convoca un *topos* que lleva a sostener que hay zonas de la praxis que no deberían

[8] Aquí se hace referencia al *estudio* de la "magic box" más que al *uso* de la misma para el consumo de historias, como es el caso en D1. Sin embargo, se mantiene la idea de base referida al desarrollo por medios artificiales de capacidades reservadas a los humanos cuando se alude al peligro (o la ausencia del mismo) de que ese "rescate" de la máquina generadora de historias pueda convertir al planeta en algo comparable a *Un mundo feliz*.

ser pasibles de automatización porque afectan a lo que nos hace ser lo que somos (la esencia del hombre en un sentido aristotélico). La respuesta de D2 refuta esto al señalar que la finalidad de la tecnología no es reemplazar la labor del hombre (ni en definitiva siquiera sugiere que uno de sus rasgos definitorios del hombre sea el contar historias) sino ayudar a conocer mejor su propia naturaleza. Es la idea de la tecnología como herramienta, pero también, de acuerdo a la metáfora mcluhaniana (2009), como extensión de los sentidos del hombre, así como la concepción de la computadora como modelo del funcionamiento de la mente propio de la primera etapa de la investigación en inteligencia artificial. Al refutar ese *topos*, D2 ataca uno de los elementos centrales que anima el relato de D1: que las máquinas hagan relatos no supone que los hombres dejarán de hacerlos ellos mismos, no habría así ya causa para la tristeza de los niños, pues no se sigue necesariamente de la invención de la "*magic box*" el hecho de que ya no habrá relatos imaginados por los hombres.

En D1 se presupone una discontinuidad entre máquina y hombre, construidos en tanto que antagonistas, mientras que en D2 ambas instancias aparecen religadas en tanto que las máquinas pueden permitir conocer más acerca del hombre, puntualmente, ofrecer indicios sobre el modo en que razonamos. De allí el lugar diferente que ocupa el niño en ambos relatos: en D1 el niño representa una inocencia que es propiamente humana, su pureza originaria. La respuesta D2 retoma la figura del niño pero no ya como lo puro o lo no corrompido aún, que en tanto tal es capaz de diferenciar lo real (las historias hechas por los hombres) de lo artificial (las historias de las máquinas); antes bien, el niño es utilizado como arquetipo de curiosidad: "Un día, muchos años después, uno de los niños, que era extraordinariamente curioso, preguntó a un adulto cómo funcionaba realmente la magia". Ser curioso es lo que define al hombre para D2, y la máquina (como inteligencia artificial) es una herramienta privilegiada para conocer más sobre nuestro propio razonamiento.

Merced de esta transformación del *topos* asociado a la infancia, la figura del niño pasa de ser aquel que precipita la caída de la máquina en D1 ("Pero conforme pasó el tiempo, los niños pequeños dejaron de sonreír a la caja mágica cuando ésta les contaba historias"), a aquel que la rescata del olvido en D2 ("'¿Vamos a descartarlo con la palabra 'magia'?' preguntó el precoz

mocoso. 'Porque parece bastante pobre (*lame*)'").[9] En ambos casos, la figura del niño es el actante que hace avanzar el relato, aunque en sentidos opuestos en relación con la máquina: la destierra en D1 y la recupera en D2. Esto es posible únicamente porque se transforma aquello que del carácter humano representa el niño, aunque en ambos casos sea presentado como aquello que es esencialmente humano (este es un acuerdo más profundo mantenido por ambos comentarios). Sucede que dicha esencia ha pasado de ser, en D1, la pureza previa a ser corrompida por la sociedad de consumo (preocupada solamente por riquezas, bienes materiales y ascensos laborales) a convertirse, en D2, en el símbolo de la curiosidad humana, antes de que resultara sofocada por los preconceptos y modos preestablecidos de concebir el mundo (y la tecnología). El *topos* de la curiosidad de los niños, convocado por D2, es elocuentemente expresado por Bertrand Russell en su retrato de los filósofos presocráticos: "Estaban interesados en todo – meteoros y eclipses, peces y torbellinos, religión y moral; con un intelecto penetrante combinaron el entusiasmo de los niños. Desde este punto en adelante, aparecen las primeras semillas claras de decadencia" (1972, p. 73. La traducción es mía).

3. El desplazamiento de la *quaestio* entre D1 y D2

Cuando se trata de definir la cuestión en los comentarios analizados se observa que se ha operado un desplazamiento entre D1 y D2. Este movimiento resulta clave para el desarrollo del intercambio argumentativo, aunque puede pasar desapercibido cuando el análisis se mantiene exclusivamente en el nivel de las secuencias. El olvido de la cuestión o problema lleva a no considerar al discurso "un orden de respuestas, sino un orden *proposicional*, es decir, una red de juicios que no remiten a otra cosa que a ella misma. Enunciar respuestas supone, no obstante, que se deba y pueda identificar

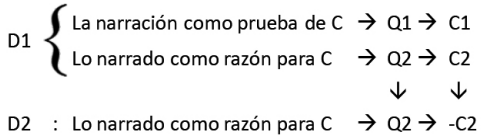
[9] Asimismo, la "magia" no representa ya en D2 la esencia de lo humano sino que más bien constituye una declaración de impotencia o un indicio de desidia, un calificativo aplicado a aquello que se encuentra más allá del alcance de la razón humana, sea porque se resiste a su capacidad de comprensión o, en este caso, porque voluntariamente se ha decidido no ocuparse del problema.

aquello que corresponde a las cuestiones, es decir, tanto aquello de *lo que* es cuestión en dichas respuestas como lo que *constituye* cuestión en ellas" (Meyer, 2013, p. 271). La cuestión en los textos analizados se cristaliza a raíz de un conflicto o problema común pero es construida por el discurso en función del modo en que proponente y oponente estructuran su intervención argumentativa. Aquí, el desplazamiento de la cuestión se encuentra, creo, íntimamente relacionado con la condición inatacable del primer nivel de la argumentación de D1. La performance narrativa de D1, en la cual el relatar es simultáneamente argumentar y probar la superioridad de los relatos de los hombres sobre los de las máquinas, no puede refutarse por un comportamiento simétrico de D2 (solamente podría serlo por un nuevo relato de una máquina que englobara la respuesta de D1 como objeto de su discurso con un nivel de creatividad semejante).[10] En cambio, D2 en el mismo movimiento por el cual concede (solamente en tanto que silencia la cuestión) que las máquinas no pueden producir relatos con el mismo nivel de sofisticación que los seres humanos, desplaza levemente el foco de su discurso. En D1 la *quaestio* (Q1) reside en si las máquinas (un software de computadora en el caso de la noticia o la "*magic box*" tal como aparece representada en el relato), pueden emular una de las prácticas consustanciales al ser humano: la creación de historias. D1 es una argumentación (una macrosecuencia argumentativa) que responde negativamente (C1), pero la prueba la constituye el mismo relato como acto. Sólo de manera subsidiaria, D1 pone en escena las consecuencias derivadas de Q1, y que llevan a otra cuestión (Q2) relativa a las implicancias de dejar la narración de historias a cargo de las máquinas: que los hombres olvidarán cómo hacerlo;[11] y lo hace a nivel del contenido de lo relatado (el propio acto de relatar de D1 ya no tiene que ver con esta cuestión). Sin embargo, es solamente este aspecto de la *quaestio*, el expresado al nivel del contenido, el que retoma-

[10] Un oponente podría asimismo sostener que el relato producido por D1 no es más original ni puede ser considerado superior en ningún aspecto importante al de la máquina, pero no se trataría de una respuesta simétrica a la de D1 en donde *relatar es probar*.

[11] El tratamiento que se hace de esta segunda cuestión (Q2) se apoya, como vimos, en el *topos* según el cual lo que hacen las máquinas ya no lo harán los hombres (la premisa mayor del segundo silogismo reconstruido en el inciso 2.2), y no en la idea de que las máquinas no pueden escribir historias del modo en que puede hacerlo un hombre, que es lo propio de Q1.

rá D2 para refutarlo. En este sentido, D2 opera una concesión solapada respecto de la primera cuestión (Q1), puesto que no la explicita en ningún momento, mientras que refuta la segunda conclusión (C2) derivada de la cuestión subsidiaria Q2 (expresada en términos muy amplios: ¿la tecnología es buena o mala?), que es meramente una elaboración de C1 a nivel de lo narrado (aunque no se sigue necesariamente de ella sino que resulta fundamentalmente de la aplicación del *topos* según el cual lo que hagan las máquinas ya no lo hará el hombre).



Se pasa de la pregunta sobre si las máquinas pueden escribir como los humanos (Q1), que es la que presenta la noticia y la que retoma D1 en tanto que acto de narrar, a la pregunta, mucho más amplia, por la utilidad/beneficio para el hombre de la investigación científica y el desarrollo tecnológico (Q2). Pero más allá del *topos* empleado, este desplazamiento lo autoriza sobre todo la historia de la narración de D1, que escenifica un paisaje propio de la ciencia ficción distópica donde en el futuro las personas han renunciado a alguno de los aspectos que las hacían humanas. Es esta puesta en escena la que habilita a D2 para acusar a D1 de recurrir a los lugares, ya hoy comunes, de *Un mundo feliz* de Aldous Huxley. Esa referencia literaria resulta muy pertinente en el contexto de una argumentación estructurada como relato, pues califica los argumentos del oponente sin renunciar a las reglas del juego retórico: D1 y D2 son argumentos pero también son relatos, o más precisamente, son argumentos y conclusiones derivados o construidos a partir de relatos. Así, D2 coloca a D1 dentro de la clase de relatos apocalípticos en relación con lo tecnológico del cual el caso paradigmático puede considerarse el libro clásico de Huxley, y de este modo lo presenta como un argumento que desarrolla consecuencias extremas de los datos de los que parte (movimiento que podría esquematizarse en el de la "pendiente resbaladiza" o "pendiente fatal" y que aquí lleva a una posición tecnófoba o ludita), lo que socava su aceptabilidad al mismo tiempo que se mantiene dentro de la lógica escenográfica elaborada: trata al argumento

como un relato, y como un relato que recurre a los lugares comunes (la tópica) de la clase de relatos como *Un mundo feliz* (que aquí funciona como el prototipo de toda una serie de relatos similares que incluye también a D1). Pero caracterizarlo simplemente como un esquema de pendiente resbaladiza supondría abstraer el argumento, y el campo tópico que despliega, del dominio específico dentro del que funciona, que es el de la literatura. El topos, gradual, pero también general y común (Anscombre & Ducrot, 1994), previo por tanto a la situación discursiva en el que se esgrime el argumento que lo convoca, no pertenece exclusivamente al campo de lo literario pero, en este caso, se resuelve y adquiere su eficacia dentro del mismo.

El acto de narrar que en D1 *es* la propia prueba de su argumento, pues incorpora la cuestión de la nota y la narrativiza de manera creativa de un modo que por el mismo acto de construir el relato la refuta. Este acto es silenciado por D2 y queda reducido al contenido de lo narrado, que es atacable en tanto puede ser asimilado (por medio de una analogía literaria) a un punto de vista estereotipado. Desde el momento que D2 coloca la etiqueta de tecnófobo y conservador sobre los argumentos de D1, el debate queda estructurado según estos nuevos parámetros, y la cuestión es solamente si se debe renunciar o no a la investigación científica y tecnológica, lo que vuelve la posición de D1 difícil de sostener. La oposición entre el punto de vista tecnófobo y tecnófilo, empleada para dividir el segundo apartado del presente trabajo, es en realidad, la derivada de la definición de la cuestión según D2 (Q2), que no obstante difiere de la cuestión (Q1) tal como ésta es planteada por D1 (e incluso por la noticia misma). Resulta evidente aquí que, como señala Plantin, "una de las características esenciales del debate es jugar con las reglas del debate" (2002, p. 238).

4. Conclusiones

Plantin, al igual que Meyer, atribuye un rol central a la cuestión en la argumentación: "es la pregunta la que provee la proposición que el análisis llamado tópico encuentra en el consecuente de la ley de paso" (1993, p. 486). Plantin se pregunta acerca de la necesidad de un concepto como el de ley de paso (Toulmin, 2007) para dar cuenta del proceso de argumentación, y sostiene que si bien puede considerarse a una máxima como una

ley de paso, "se deberá al menos admitir que es polifuncional: la formulación elegida es argumentativa; dicho de otro modo, aquí la *elocución* es *invención* argumentativa" (1993, p. 487). Esto aplica en realidad para toda escenografía en el sentido de Maingueneau, dado que no hay un molde discursivamente neutro para expresar un argumento (suponiendo, lo que es dudoso, que podamos considerar a la forma completamente separada del contenido). A nivel de los enunciados, los datos no son tampoco nunca puros, como sostiene Nicolet (1993) siguiendo la perspectiva ducrotiana que rechaza el carácter esencialmente vericondicional de los enunciados; antes bien, los datos se construyen desde cierto punto de vista, y constituye ya la presentación misma que se hace de ellos la primera prueba (en tanto se convoca cierto campo tópico, bajo una forma tópica determinada, en lugar de otro, *a priori* igualmente aplicable).

En ambos comentarios analizados la narración juega un papel clave aunque diferente. También diferente es el tipo de narración empleado, en términos genéricos y estilísticos, y esto responde a aspectos argumentativos funcionales a las finalidades persuasivas de cada comentario. La elección en D1 del género fábula está signada por su función de imitación o de pastiche satírico de la fábula original de la máquina, operación que es empleada con el fin de ridiculizarla. En este sentido, el relato en D1 cumple un rol performativo, casi ostensivo, y convierte al enunciado (y al enunciador) en portador de su propia evidencia. La escenografía narrativa novelesca de D2 solamente podrá operar a nivel de la diégesis construida en D1, que es pasible de ser refutada. D2 aparenta construir una prolongación del relato de D1 pero, justamente, el género "fábula simple" no le permite construir la refutación, por lo que debe apelar a un relato más elaborado. En D2, la narración se sirve de recursos literarios que pertenecen al campo discursivo desde el que se polemiza con D1, al que acusa de recurrir a los lugares comunes de la ciencia ficción apocalíptica. De este modo, D2 coloca su argumento (y el argumento de D1) dentro de un debate sobre valores que los excede y preexiste, y que puede entenderse de manera general como la tecnología es (+) o la tecnología es (-), pero siempre desde en un campo discursivo particular, que es el de la literatura de ciencia ficción. Es, en definitiva, el desplazamiento de la pregunta o *quaestio* el que habilita el nuevo campo tópico a partir del cual argumenta D2, y lo hace tanto a nivel global de la forma narrativa (con sus rasgos genéricos y estilísticos específicos de

lo novelesco) como a nivel de lo enunciado en cada frase y a las formas tópicas locales sobre las que construye la historia que narra (que le habilita además a emplear una serie de *exempla*),[12] pues los diferentes niveles funcionan (o idealmente deberían hacerlo) de manera solidaria.

Resulta de especial importancia considerar el contexto discursivo en el que el argumento aparece inserto. Como afirma Plantin, "los resortes de la dinámica argumentativa deben situarse al nivel de las operaciones lingüísticas practicadas por los locutores y de los esquemas discursivos que circulan en su comunidad" (1993, p. 495). Pero el modo en que estos puntos de vista se plasman en los discursos analizados, así como las operaciones de refutación de los argumentos antagónicos, dependerán del nivel argumentativo en el que nos encontremos. Así, en el *nivel de los enunciados*, los argumentos resultan más reversibles, y pueden incluso ser isomórficos entre los oponentes; pues en ocasiones basta sólo con sustituir un campo tópico por otro dentro de esquemas similares (como sucede aquí con los *topos* asociados a la infancia). A *nivel del texto*, la justa argumentativa comporta además de los cambios a nivel del contenido (en términos estructurales del relato, en este caso, a nivel actancial y funcional), ciertas modificaciones estilísticas o ciertos ajustes genéricos: en el ejemplo analizado, comporta el paso de la fábula a los recursos del cuento corto o la novela. Por último, el *nivel interactivo* es el que más depende de las identidades de proponente y oponente, en tanto que puntos de vista preexistentes al intercambio discursivo en cuestión vinculados siempre con una tópica de una determinada comunidad. En este sentido, tal como se deriva del esquema de interacción argumentativa que propone Plantin, los puntos de vista confrontados se suponen preexistentes a las respuestas que proponen a la cuestión de la que se trata, aunque, desde luego, estos puntos de vista se construyen asimismo discursivamente en la interacción considerada. En el ejemplo analizado, la construcción de un relato puede funcionar en D1 como prueba de su punto de vista, mientras que en D2 funciona solamente como una escenografía, bien que pueda considerársela una prueba del *ethos* discursivo utilizada fundamentalmente para (des)calificar el discurso del oponente. El análisis

[12] D2 introduce *exempla* reales para apoyar su punto de vista (como el del Blu-tack); en ese sentido, se sale de un mundo narrado exclusivamente ficcional de un modo que no podría hacerlo una fábula (y que de hecho no hacen el relato de la computadora ni D1).

desarrollado aquí ha pretendido mostrar a partir del estudio de un intercambio discursivo concreto que, como señalara Maingueneau, "el discurso no resulta de la asociación contingente de un 'fondo' y de una 'forma', no se puede disociar la organización de sus contenidos y el modo de legitimación de su escena de habla" (2002, p. 64).

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Collateral Beliefs and the Rashomon Effect

Creencias colaterales y el efecto Rashomon

Christopher Tindale

University of Windsor, Windsor, Canada
ctindale@uwondsor.ca

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Abstract: Contested events, where witnesses disagree about what they have seen and what it means, pose a problem for accounts of testimony, which otherwise may serve as a reliable source of evidence in argumentation. I explore this problem as it is presented through the Rashōmon effect, demonstrated in Kurosawa's 1950 film, *Rashōmon*. By drawing on ancient work on experience and recent work on cognitive environments, I explore the ways in which collateral beliefs impact the way people experience events and understand them.

Keywords: Argumentation, beliefs, cognitive environments, experience, probability.

Resumen: Eventos disputados, donde los testigos desacuerdan sobre qué han visto y qué significan, imponen un problema a las explicaciones del testimonio, los cuales de otra forma pueden servir como una fuente confiable de evidencia en la argumentación. Exploro este problema tal como es presentado a través del efecto Rashōmon, que se muestra en la película de Kurosawa de 1950, *Rashōmon*. Poniendo atención en el trabajo de los clásicos sobre la experiencia y en el reciente trabajo sobre ambientes cognitivos, exploro las formas en que las creencias colaterales impactan la manera en que la gente experiencia los eventos y los entieneden.

Palabras clave: Argumentación, creencias, ambientes cognitivos, experiencia, probabilidad.

1. Contested Events

Testimony is one of our primary sources for information about the world. While epistemologists may still disagree about the independence of testimony from other sources, it is no longer treated with the kind of disregard that characterized a common response in the history of philosophy. Reductionists since Hume have required a regular conjunction between testimonial reports and the facts that correspond to them. Thus, since testimonial beliefs are justified by non-testimonial sources, then testimonial justification reduces to the justification of perception, memory and reason. Non-reductionists challenge this claim since they hold that we rely on testimonial reports—from parents and guardians—long before we have the capacity to measure the reliability of non-testimonial sources. Thomas Reid was an earlier exponent of this position. Both positions agree, however, that testimony is a reliable source for information that we might not acquire in any other way. Fortified with conditions for determining the trustworthiness, competence and reliability of both testifier and audience, and for detecting the presence of both positive reasons for and defeaters against acceptance, epistemologists of testimony provide rich theories that elevate this source of knowledge to its important place among the other sources (Fricker, 1987; Faulkner, 2000, Lackey, 2008).

These primary accounts of testimony, however, deal with statements of a single testifier. While eschewing the institutional role of *formal* testimony in places like the law courts, for example, Lackey concentrates on the *natural* testimony that is more characteristic of everyday circumstances (2008: 14), like giving someone directions. But she will also include the kinds of reports that overlap the formal and natural situations (and may undermine the value of such a division) in the giving of reports of what happened on a certain occasion. Our appreciations of historical events depend on such reports, as do our understandings of the lives of those around us.

Sometimes, however, testimonial accounts do not illuminate the events they report as much as they obscure them, and this is because they do not agree. Contested events are those for which we have competing and often conflicting reports, all of which may have some initial plausibility. The work of epistemologists of testimony does provide us with important tools for assessing such conflicting reports and deciding which testimonies to

believe. What interests me in this paper, however, is how such testimonies arise.

2. The Rashomon Effect

The phrase "Rashomon Effect" derives from Akira Kurosawa's film *Rashōmon* (1950)[1] set in 12th-century Japan, in which the audience is given four different tellings of a single event. The contested event in question is the death of a samurai. At a trial, where the camera represents the only judge or jury to be evident, four conflicting accounts are given of the death: by the bandit, whose trial it is; by the samurai's wife; by the samurai himself (through the aid of a medium); and by a passing woodcutter, who may have witnessed the death. And each of these narratives is supported by a different version of the event being played out in the film. The bandit, wife, and samurai, each centre an account around themselves and claim responsibility for the death as a way of maintaining her or his integrity. The passerby—the only non-participant—gives an account that reflects badly on all of the participants. Kurosawa leaves any "truth" about the event unresolved; the audience is left to its own devices in sifting through the different versions and coming to its own conclusions.

'Rashōmon', we are told in the film, is a devil that has deserted the ruined temple in which the stories are being discussed, driven away by the ferocity of human beings.[2] The closing scenes at the temple revolve around questions of dishonesty and the film ends with the discovery of a newborn child and some suggestions about trust. But in many ways these natural issues direct attention away from the more interesting suggestion—that none of the testifiers is being dishonest, but is constructing a truth that is

[1] Based on the short story 'In a Grove' by Ryunosuke Akutagawa (2006), which consists of seven accounts of the murder of a samurai.

[2] We have three levels of telling to consider. Among the temple's ruins, three men discuss the trial and the different accounts given there. One of the three was not present then and serves as the audience, and another is the woodcutter, who gives his own account here. At the trial of the bandit the accounts of the three participants—bandit, wife, and samurai—are given. And at the original scene of the contested event, the four versions are played out.

fully supported by how they interpret their roles in the event. The focus on dishonesty assumes an underlying truth that is being distorted or deliberately contradicted by the speakers. But the provision of four plausible versions of the event, one to support each narrative, challenges such a simple reading of the film. Rather than asking which of the accounts is the truth, we might rather ask how each of the accounts achieves its plausibility and how an objective judge or jury could ever decide among them. For given the people involved and the kinds of interests that would drive them and through which *they* would judge the event, each telling is noteworthy for its likelihood. Kurosawa replaces one very simple question (how did the samurai die?) with one that is far more interesting: why do the different testifiers say what they do about their own involvement?

The 'Rashomon Effect' describes the kinds of disagreements that arise in anthropology and other social research, on the part of subjects and those investigating them (Heider, 1988; Roth & Mehta, 2002), but it can apply to any descriptions of contested events. It focuses attention on the import of testimony and the problems that can attend it when the other principal sources of knowledge (perception, memory, and reason) are unavailable or impaired.

Roth and Mehta (2002) review differences between positivist and interpretivist approaches in such cases and argue that they need not be at odds with each other. A positivist approach assumes that there is an underlying truth to the event that can be uncovered and verified by standard means. The interpretivist, by contrast, looks not for a fixed truth but for how different perspectives shape the way things are understood and how the resulting accounts shed light on those who give them. On their reading, an interpretivist approach "adopts the broad goal of illuminating a set of social meanings that reflect cultural beliefs and values" (2002: 135).

Taking as examples of contested events two case studies of high school shootings, Roth and Mehta explore some of the key factors that interfere with positivist analyses: memory, vested interests, and mistaken judgments. The last of these can particularly affect the ways in which people interpret what they think they know. Interviewees may draw from media reports and community gossip and mix this with their direct experience. They may also make faulty inferences from what they've experienced by using the kinds of common heuristics that psychologists have found people to employ as short cuts in situations of uncertainty.

This means that simple testimonies cannot necessarily be trusted, and that even when many people report the same thing it may just mean that they have all drawn from a common source, which may not be reliable. This leads Roth and Mehta to adopt two complementary strategies aimed at improving the quality of factual data: (1) taking what people say and considering it in light of their contexts, including how they came by their knowledge, their personal or political agendas, and their social positions; and (2) triangulating among various respondents and sources, using the contextual knowledge in (1) (148). The principal concern that suggests itself about such an approach when dealing with contested events is that it is largely a strategy of attempting to eliminate unreliable information or sources of information. This encourages a corresponding focus on what is suspicious and, if not guarded against, a tendency to dismiss rather than to accept.

When they turn to interpretivist analyses, and particularly when they combine these with the positivist strategies, Roth and Mehta adopt a strategy of interpretively informed triangulation. This builds on contextually informed triangulation, but adds to it an attempt to understand people's worldviews and how these worldviews influence responses to questions that seek objective truth. "A respondent's understanding of her world and culture is a fourth and, for our purposes, most illuminating form of bias that is not captured by our previous categories of memory, vested interests, or mistaken judgments" (162). People can put considerable effort into interpreting events in ways that support their worldviews. Accordingly, attempts need to be made to understand such worldviews and measure their influence.

Nothing in Roth and Mehta's considerations contradicts our basic understanding of communicative processes and the kinds of implicit cooperation that are involved (Grice, 1989). People may be essentially truthful and unconsciously adopt maxims to say no more than what is necessary in a context or to be as clear as possible. These things are coloured, however, by the subtle biases that influence testimony. Essentially, we are being told that who says something is as important as what is said. Not because a particular person is important, but because the makeup of who they are affects what they say and how they say it. Roth and Mehta suggest that we can know both the truth about a matter and why the people involved believe

what they do about the event (168). Perhaps, pursuing parallel approaches from positivist and interpretivist perspectives, these results might be achieved. But it is very difficult to see the two integrated as proposed. The analyst is being asked to see through clearer lenses than the participants themselves, through lenses that filter out biases that do not just reflect a belief system but also reinforce it and add to it. Whatever truth the analyst sees, it is almost by the very admission of the methodologies employed not the truth of the participants. On these terms it is hard not to see it as just another account stacked with the rest. Whatever 'authority' it professes, it is not the authority of testimony nor, and because of this, the authority of experience. On the other hand, focusing on the interpretivist's attention to a witness' worldview—if we understand what a worldview entails—is a step toward understanding different accounts of contested events.

3. Is there an underlying truth? An historical diversion

As noted above, the focus on dishonesty in some interpretations of Kurosawa's film assumes an underlying truth that is being distorted or deliberately contradicted by the speakers. An interpretivist perspective challenges this assumption, or at least the ease with which any underlying truth could be known, especially when the route to it is through testimony. But this idea has a long, if thin, tradition, stretching back to at least the work of Antiphon the Sophist, who emphasized the necessity of making judgments based on what one's experience indicates is most likely to be the case. The value of such strategies arise in situations of uncertainty, where questions about what actually happened in contested events must be answered without the judges having access to an undisputed set of "facts" (as in *Rashomon*).

We see this particularly in Antiphon's *Tetralogies*, three demonstrative speeches with four parts each, written as teaching tools and involving speeches by the prosecution that are then countered by the defense. The first case involves an assault of a man and his attendant (or slave). The man died in the attack and the attendant died shortly after being discovered. Antiphon presents two exchanges between the prosecutor of the man accused of the attack and the defendant. Each of the four speeches addresses

the situation in terms of likelihoods, with the prosecutor arguing in the first speech that the jury "must place great reliance on any kind of likelihood which [they] can infer" (*DK* 87 B1: 2.1.2.); and the defendant concluding in his second speech that "it has been demonstrated that these likelihoods are in general on my side" (2.4.10.).[3]

In the first speech of the prosecution attention is drawn to several likelihoods, including that the criminals were not professional killers, since the victims were still wearing their cloaks, and it's likely professionals would have taken them; and the killing was not the result of a dispute, because people do not become involved in disputes in the middle of the night and in a deserted spot. In fact, the most likely culprit in such a crime is a man who has already suffered injuries at the victim's hand and expected to suffer more. And this describes the defendant: an old enemy, who had recently been charged by the victim with embezzlement.

To these particular charges, the defendant counters in his first speech: It is not unlikely but likely that a man would be attacked in the night and killed for his clothes. That they still had them suggests that the killers panicked. On the other hand, maybe the man and his attendant were witnesses to a crime, the perpetrators of which silenced them. Or, is it not more likely that others who hated the victim would have committed the crime, knowing that suspicion would have fallen on the defendant. To the prosecutor's charge that the defendant was the most likely person to commit the crime, the defendant responds: "Indeed, if on grounds of likelihood you suspect me because of the intensity of my hostility, it is still more likely that before I did the deed I should foresee the present suspicion falling upon me" (2.2.3). Hence, Antiphon invites the reader to consider the case from the perspective of what their experience tells them is likely to have happened, or what might reasonably be extrapolated as likely from the details provided. An objector[4] might insist that one of the alternative likelihoods really *is* likely because there is a truth about the case being masked by this strategy. But Antiphon's procedure seems fairly aimed at arriving at a determination

[3] The fragments of Antiphon are found in Diels and Kranz (1952). Translations of Antiphon are modified from those in the English edition of Sprague (1972).

[4] This is Aristotle's position, for example, stated in reference to a similarly stated case (*Rhet*.2.24.).

about a case where the question "what actually happened?" is inappropriate. We see this, for example, in the way that a key detail is treated in the dialectical exchange between prosecutor and defendant.

> Prosecutor, first speech: The attendant was still conscious when found, and before he died he named the defendant as the attacker.
>
> Defendant, first speech: It is unlikely that the attendant would recognize the killer in the heat of the moment. And, besides, a slave=s testimony is untrustworthy, which is why slaves are submitted to examination [torture] to extract the truth from them.
>
> Prosecutor, second speech: The testimony of the slave *is* trustworthy, since in giving evidence of this kind, slaves are not examined.
>
> Defendant, second speech: We should not trust the testimony of an attendant over that of a free man (the defendant himself).

Each contribution of this exchange is designed to get the hearer (or reader, in our case) to revisit the details of the case, replacing one likelihood with something deemed more likely. Each contribution changes the context relevant for the judgment. In this way the speeches attempt to tap the hearer's experience so that the world is seen as a place where what is proposed seems most likely to have happened.

This is seen even more vividly through one of the peritropes (reversals) demonstrated in the second tetralogy. This is a case where a young man, practicing the javelin with his classmates in the gymnasium, accidentally kills another boy who runs in front of the javelin as it is being thrown.[5] Again, the prosecution and the defense exchange two speeches. What is at issue is whether the dead boy should be avenged by the death of the boy who threw the javelin, even though it is agreed he did so unintentionally. In the second speech the defendant (the accused boy's father) argues that the dead boy is avenged if the killer is punished, and in this case such has occurred: "The boy, on the other hand, destroyed by his own mistakes [in

[5] That there is a story from Plutarch of Pericles discussing such a case with Protagoras suggests that this may have been a set case that speeches were written about for the purposes of pedagogy (*DK* 80 A10).

running in front of the javelin during the class], simultaneously made the mistake and was punished by his own motion. Since the killer [i.e. the victim himself] has been punished, the death is not unavenged" (3.4.8). Here, the tables are turned (hence, the peritrope) so that the victim is made to seem the killer. Elsewhere we learn that Antiphon's treatment of language allows that when someone speaks there is no permanent reality behind their words. Only the senses tell us what exists, and "names are conventional restrictions on nature" (*DK* 87 B67). This is to suggest that the meanings of "victim" and "killer" need to be worked out by exploring the context of a particular case. The same will hold for what is understood as "justice." These claims about Antiphon's ideas come from the fragments of his *On Truth*, which is the source to turn to so as to understand further the ideas held by the writer of these speeches.[6]

Antiphon's sample arguments in the *Tetralogies* demonstrate a level of argumentation quite different from the usual eristical reasoning attributed to the Sophists and illustrated in places like Plato's *Euthydemus*. Still, commenting on Antiphon's material Jacqueline de Romilly (1992) casts a negative pall over any suggested accomplishments:

> It was heady stuff, no doubt, but alarming too. Such an ability to defend both points of view suggested a disconcerting unconcern for the truth. If it was a matter of defending opposite points of view equally well, justice was left with no role to play. Besides, the art of twisting arguments rendered the very principle of argumentation suspect. In fact, it made the reasoning of the Sophists look like precisely what we today would call 'sophistry' (80).

These are serious charges, particularly as they affect "the very principle of argumentation." But they are drawn from a perspective that recognizes an

[6] A fair counter-argument to what I am proposing here is the observation that in other speeches Antiphon does appeal to and employ a more conventional notion of 'truth'. In the real case of *The Murder of Herodes*, for example, there is an insistence on "the truth of what happened" which contrasts with the remarks in the *Tetralogies* and in *On Truth*. But as Michael Gagarin recognizes in his notes to the speech (Antiphon, 1998:51n4) "one must remember that in a hypothetical exercise, Antiphon could make frank statements that would be inappropriate in a real case." Indeed, the distinction between his own philosophical position and what it would be expedient to write for a client to present to a real jury would account for these conflicting statements on 'truth'.

underlying truth, and they understand "justice" as the means or institution by which that truth is recognized and upheld. This view, while consistent with the reading that runs down to us through Plato and Aristotle, is not one that would seem to be shared by Antiphon and at least one other major Sophist. Consequently, I will explore this claim with respect to Antiphon and Protagoras. The latter enters naturally into this discussion because there are clear reasons for reading the rhetoric of Antiphon as consistent with the Protagorean perspective. Some of the discourse we have seen Antiphon employing, for example, is very similar to that used in the case cited by Aristotle in his *Rhetoric*, and which Aristotle had then associated with the name of Protagoras.[7]

De Romilly also makes the case for seeing Antiphon's speeches as reflecting the spirit of Protagoras' influence, particularly with respect to the procedure of making the weaker of two arguments the stronger, and the technique of double arguments, the secret of which "lay in knowing how to turn to one's own advantage the facts, the ideas, and the very words of one's opponent, making them point to altogether the opposite conclusion" (1992: 78).

In the *phusis* v. *nomos* debate of the fifth century, Antiphon aligned himself clearly with the forces of *phusis*. The fragments we have of Antiphon's *On Truth* show that he had serious reservations about the value of justice as defined by the laws of the state. "For the demands of law are artificial, but the demands of nature are necessary" (*DK* 87 B90: Fragment A). In fact, the division is so strong that many of the things that are just according to law he deems to be at variance with nature. This is shown vividly in Fragment B in the discussion of harming those who are innocent. Justice sometimes requires that a person be called upon to give evidence against a neighbor, even though that neighbor has done no wrong to the individual in question. Even if the evidence is accurate, the neighbor is being harmed and left open to suffering. So the witness wrongs someone who has done that person no harm, and justice requires this. "Indeed," writes Antiphon, "it is impossible to reconcile the principle that this conduct is just [that is, giving evidence against one's neighbor] with the other principle, that one should not do any injustice nor suffer it either" (*DK* 87 B92).

[7] For a discussion of the relationships between Protagoras and Antiphon see Caizzi (1999).

Given this view of justice, it is quite understandable that he would carry the attitude over into the speeches he wrote for the law courts and the way he instructed others to construct such speeches[8]. Fragment A of *On Truth* ends with the observation that 'justice' is on the side neither of the sufferer nor the doer, but with the one who can persuade the jury. If there is no 'truth' behind the laws of the state, then recourse must be made to nature—a 'truth' known through experience. And in working with experience, whether his own or that of the jurors, he must look to likelihoods, to what is likely given what we know from experience. On these terms, the strength of an argument lies only in its plausibility. For these Sophists, there is no *prima facie* weaker argument or case. There are the details that can be presented in various ways by the arguer. But any presentation of details is an interpretation, as Antiphon's *Tetralogies* show. And as those details are presented in different ways, the audience is brought to see the events from different angles. Should the audience be forced to make a decision, its only resource is what has been made to seem *most* likely.

This understanding accords with the way Plato presents the practice of Protagoras, particularly in the *Theaetetus*.[9] While we might have concerns over how Plato interprets the Sophists, much of his basic presentation of them fits with what we learn from other sources and from their own fragments. As with the other Sophists who have been engaged in the dialogues, Protagoras represented a threat to Plato's philosophical project. His "measure maxim" (that the individual is the measure of all things, those that are that they are, and those that are not that they are not—152a) acts as a great leveler among people. People can think for themselves, reflect on their own experiences and be brought to view those experiences (the ways things appear to them) with a degree of clarity. It is a direct challenge to philosophical discussion in the Platonic vein: "To examine and try to refute each other's appearances and judgments, when each person's are correct—this is surely an extremely tiresome piece of nonsense, if the *Truth* of Protagoras is true" (161d). Perhaps the most revealing passage here is that which

[8] In fact, among the arguments supporting the thesis that the Antiphon of the speeches, including the *Tetralogies*, is the same Antiphon as that of *On Truth* is this consistency of attitude toward the courts and speech itself.

[9] Elsewhere (2010), I have presented arguments for why we should take this portrait an attempt at a serious depiction of Protagoras' views.

evokes the presence of Protagoras himself, summoned to his own defense. What Plato has Protagoras explain serves to fill in the picture of the argumentative practice that we have been exploring here and that Plato would find so problematic. Consider something of this when "Protagoras" says, "...the man whom I call wise is the man who can change the appearances—the man who in any case where bad things both appear and are for one of us, works a change and makes good things appear and be for him" (166d).

While this is not the place for a detailed examination of his 'measure maxim', it is generally recognized that all that can be changed for Protagoras are the appearances, for these are all that are known to us, and he must remain skeptical about how things might actually *be* since we have no access to them. Bringing people to change their perspectives involves leading them to think differently about their experiences, to see them in different ways. And this, of course, would be done through persuasive speech. It is not a matter of changing the experiences themselves, since these are always correct for the individual; but it is a matter of changing how they view their experiences, a matter of how they develop good judgment. By extension, to deliberate about the experiences of others is to think about what is probable given what one has experienced oneself. Plato, and Aristotle, and a tradition that holds there must be an underlying truth to things, one that argument might be used to bring to light, will not countenance this approach. But those who think differently, as several Sophists apparently did, will not share those concerns.

4. The Role of Environments

This lesson from the history of philosophy helps us to appreciate some precedent for the interpretivist's view that the search for an underlying truth in cases of contested events is a fruitless and even mistaken task. But it addresses only one side of the equation—the judges who must decide testimony in such cases. Left unanswered are questions about the genuineness of such testimonies. After all, while we can see a serious philosophical position supporting Antiphon's statements about experience, his strategies still could be used simply to deceive and exploit, as their traditional inter-

pretation suggests. How do we explain the epistemic states of people who "see things differently"?

The Antiphon strategy assumes a *shared* level of experience; the person using this strategy encourages her audience to see things the same way, her way. At least, that is one reading of what is at stake. From a slightly different perspective, what the testifier is doing is attempting to plug into ways in which cognitive environments overlap so that what is implicitly present in another's environment can be made explicitly so. But while cognitive environments overlap, they are not identical. Experience, on these terms, is shared, but is shared in quite restricted ways. Things like appeals to common knowledge often mislead us when decisions are being made about the acceptability of statements. But 'common knowledge' is a misnomer that misleads into assuming a level of objectivity that is not there. Attention to cognitive environments replaces that on common knowledge in just the right ways.

Sperber and Wilson (1986) first replaced notions like that of mutual knowledge with the concept of a cognitive environment, modeled on an analogy with the visible environment in which each of us operates. In this environment, manifest facts and assumptions are for conceptual cognition what visible phenomena are for visual cognition. A fact is manifest to someone at some time if that person is *capable* of representing it mentally as true or probably true. Note here that this is a claim about cognitive capabilities in a particular time and place and need not involve a judgment of what is actually the case. It follows that a cognitive environment is the set of facts that are manifest to a person, and an assumption (which could be true or false) is manifest if a cognitive environment provides sufficient evidence for its adoption. A more detailed statement of what is involved is given in the following description:

> To be manifest, then, is to be perceptible or inferable. An individual's total cognitive environment is the set of all the facts that he can perceive or infer: all the facts that are manifest to him. An individual's total cognitive environment is a function of his physical environment and his cognitive abilities. It consists of not only all the facts that he is aware of, but also all the facts that he is capable of becoming aware of, in his physical environment. The individual's actual awareness of facts, i.e. the

> knowledge that he has acquired, of course contributes to his ability to become further aware of facts. Memorized information is a component of cognitive abilities. (1986: 39).

This defining statement may be as significant for what it omits as what it includes. Sperber and Wilson talk here about what is perceptible, what is inferable, and what is memorized. Thus, they accommodate three of the four primary sources of knowledge that were noted at the start of this paper: perception, reason, and memory. Is there then a role, we might ask, for testimony?

Cognitive environments, like physical environments, will overlap. In this way we can begin to talk about an epistemic sharing that has relevance for shared knowledge without being equivalent to it. When the same facts and assumptions are manifest in the cognitive environments of different people we have a shared cognitive environment, and any shared environment in which it is manifest which people share it is a mutual cognitive environment (41).[10] Mutual manifestness is weaker than mutual or common knowledge in just the right ways. No claim is made about mental states or processes, about what people know, the claim is only about what they could be expected to infer and come to know given the cognitive environments they share. Depending on the nature of particular cognitive environments it is reasonable to attribute knowledge to a person, although such attributions are quite defeasible. Many things in our visual fields pass unnoticed until or unless our attention is drawn to them. It is quite reasonable for people to make assumptions about what we see or might have seen given what they know about our physical environment, and they will often express surprise should we seem not to have noticed something. Likewise, we can make assumptions about what is manifest to other people, and to make weaker assumptions about what assumptions they are making. This is the crux of much communication, occurring in situations where "a great deal can be assumed about what is manifest to others, a lot can be assumed

[10] We see, for example, in a case like that of the Siamese prince related by Hume, the failure to communicate because of the absence of mutual cognitive environment. When the Dutch ambassador claims that water becomes so hard in his land that elephants can walk on it, the prince refuses to believe his testimony because it completely exceeds the limits of his experience.

about what is mutually manifest to themselves and others, but nothing can be assumed to be truly mutually known or assumed" (45).

Such assumptions provide an important resource for communication, for they allow Sperber and Wilson to claim that when we communicate our intention is to alter the cognitive environments of those we address and to thereby affect their actual thought processes. This is where what people say becomes a source for knowledge. And part of the reason we feel justified in trusting the testimony of some people (and not of others) is because it is manifest to us that we share a cognitive environment with them. We recognize the talk as we recognize the things talked about, and our experience provides corroboration for what is said.

Our cognitive environments in fact seem wider than what Sperber and Wilson allow, for we have available not only the facts and assumptions manifest to us, but also a fund of collateral beliefs in light of which we interpret and understand those facts and assumptions once they become noticed. While not directly part of cognitive environments as described, and thus not mutually accessible, they form an important role in the ways we relate to others and test what they say against what we understand to be correct in an objective sense. They also impact the ways in which we interpret what we experience and talk about it to others.

5. Collateral Beliefs

Descriptions of contested events are at once understandable because of the cognitive environment that we share, but also perplexing for the same reason. It seems that we ought to be able to agree about what is *most* likely because of such overlaps. The interpretivist sees the socially influenced worldviews of testifiers affecting their responses to questions that seek an objective truth (Roth & Mehta, 2002: 162). But behind these responses are the interpretations of the events themselves. It is not that the respondents have come to talk about events in different ways; they have interpreted them differently. And this is because they do not share an identical belief system. How we come to understand what is implicit in our cognitive environments and mutual cognitive environments is influenced by the collateral beliefs we hold, beliefs that are relevant to what is being addressed.

Early in *Making it Explicit*, Brandom observes that no two individuals have the same beliefs or acknowledge the same commitments because "everyone has noninferentially acquired commitments and entitlements corresponding to different observational situations" (1994: 185). Later, he notes that inferential significance must be understood relative to a total belief-set, with the specter of incommensurability that such an observation invites (481). The import of these points is brought home by the central dependency of the individual on the community and the difficulties implied for communal judging if each judge is drawing from a specific set of collateral beliefs. In fact, at the outset of his project Brandom challenges the very idea of communal verdicts. Assenting is something done by individuals, not by communities. So the authority of communal assent is a fiction (1994: 38). We would expect a similar judgment with respect to communal assessments of claims. So, how can notions of objective correctness emerge? In all our talk of reasons, how do we identify *good* reasons? Against what criteria are they to be decided?

Brandom salvages the objective view on two fronts: the commonality of the *res* in *de res* ascriptions,[11] and the fact that the conceptual norms implicit in a community's practices exceed the behavioral discriminations made by its members.

In the first instance, consider this lengthy example that Brandom offers:

> Suppose the Constable has said to the Inspector that he himself believes that the desperate fugitive, a stranger who is rumored to be passing through the village, is the man he saw briefly the evening before, scurrying through a darkened courtyard. Suppose further that according to the Inspector, the man the Constable saw scurrying through the darkened courtyard is the Croaker, a harmless village character whom no one, least of all the Constable (who knows him well), would think could be the desperate stranger. Then the Inspector can identify the objective representational content of the Constable's claim by an ascription *de re*: "The Constable claims *of* the Croaker (a man who could not possibly be the fugitive) that he is the fugitive." Of course he does not take it that the Constable claims *that* the Croaker (a man who could not possibly be the

[11] Ascriptions *de re* attribute belief about a thing (or *res*); ascriptions *de dicto* attribute belief in a saying (or *dictum*).

> fugitive) is the fugitive. The Constable claims only *that* the man he himself saw scurrying through a darkened courtyard is the fugitive. For the Inspector, the contrast between the *de re* and the *de dicto* content specifications is the contrast between saying what the Constable has in fact, willy-nilly, undertaken commitment to—what object his claim is *about*, in the sense that matters for assessments of truth—on the one hand, and what the Constable *takes* himself to be committed to, acknowledges, on the other hand (1994: 595).

Several things are worth noting here: It is the Inspector who must decide the objective representational content of the Constable's claim, the *what* he is talking about. And he does so successfully by drawing on other information at his disposal (that the man the Constable saw was the Croaker). The success of the communication lies with the Inspector making the appropriate attributions with respect to the Constable's commitments. That is, the audience decides the objective correctness of the matter by understanding what has been expressed by the *de re* specifications of the contents of ascribed commitments. That things are not always the way they are taken to be (in this case by the Constable) "is built into the social-inferential articulations of concepts" (597).

But is this enough? Two people may use the same words to express different commitments, but the mutual cognitive environment may be weak because each has different collateral commitments. The Inspector draws on what he knows (or, in these terms, what other commitments he has) to interpret the Constable's claim. But in this case we may judge that they share an inferential context, which restricts the possibilities in the right way. In other social settings, the different collateral commitments of the interlocutors may become more of an impediment. In such contexts it becomes difficult to understand how people can share the same meanings, and thus how they could resolve disagreements or even form them. This is a common concern with the holistic view of meaning. As Carlo Penco judges the matter: "[T]he devastating consequence is that mutual understanding and successful communication become unexplainable" (2008: 176).

We might begin to explore this problem by returning to the issue of communal assent (which Brandom judges a fiction). The Inspector is in a position to judge the incompatibility of what the Constable says (and is implicitly asking the Inspector to commit to) with his own other com-

mitments. He can thus assess the incompatibility in a way that the larger community cannot. This is in part why the kind of intersubjectivity that privileges the perspective of the "we" is rejected: "it cannot find room for the possibility of error regarding that privileged perspective; what the community *takes* to be correct is correct" (1994: 599). At root, a relationship that Brandom calls *I-thou*, in which no perspective is privileged in advance, is presupposed by the *I-we* social distinction (508). Essentially, Brandom's holism does not depend on shared meanings but on the understanding of communication as a cooperative venture, although there is still a sense of sharing involved. Objectivity derives from the ways in which we interpret the beliefs of others and they of us.

The interaction between attributor of commitments and entitlements and attributee is complex. Brandom employs a marketplace metaphor: "Sorting out who should be counted as correct is a messy retail business of assessing the comparative authority of competing evidential and inferential claims" (601). Of course, correctness here can involve more than one sense. In the first case we can ask of a person's claim whether all the evidence was taken into account, and were good inferences made from that evidence. That is, there are certain rules that govern the game of giving and asking for reasons, and speakers can be held to account with respect to them (Brandom, 2000: 197). In the second case, we can turn from how the participants performed to look at the correctness of what they said. Is the claim compatible with other claims made within the community?

What is shared within a community is a set of norms at work when members are taken to adopt the discursive scorekeeping stance toward each other. Important here is Brandom's claim that the conceptual norms implicit in the practices of a community overrun or exceed the behavioral discriminations made by its individual members. Concepts and the commitments they involve can thus be said to be shared in spite of the differences in attitudes of those involved (1994: 631). In fact, to be engaged in a discursive practice is to be bound by objective, shared concepts, whose proprieties for use outrun individuals' dispositions to apply them. Speakers do not control the significance of the words that they use. "The members of a linguistic community who adopt the explicit discursive scorekeeping stance to one another achieve thereby a kind of *interpretive equilibrium*. Each one interprets the others as engaging in just the same sort of inter-

pretative activity, as adopting the same sort of interpretive stance, as one does oneself" (642).[12] Such constitutes one's social self-consciousness. This allows for the kinds of persuasive appeals championed by Antiphon, predicated on levels of experience and associated meanings that are recognizable to all parties.

6. Conclusion

It might be objected that Brandom's *I-thou* structure by which he salvages the possibility of error and even more the concept of a cognitive environment both assume there is an underlying world of facts. After all, the explanation of the cognitive environment talks repeatedly of facts. Indeed, there are underlying facts in Antiphon's world and the world of *Rashōmon*. A man has been killed; people were present; and so forth. What is contested is what these facts mean, their 'truth'. And the concept of a cognitive environment does not assume anything about truth on this level, because it describes a situation prior to such interpretative decisions. Similarly, the objectivity of the *I-thou* derives from the interpretation of beliefs and allows for the kinds of error to arise in communities that even contested events must admit. Nothing in the interpretivist's position accords equal status to all accounts of a contested event. All testimony feeds into the game of giving and asking for reasons, and justification depends on the quality of those reasons. But on the terms explored here, what *count* as reasons include—or are drawn from—the wider set of relevant collateral beliefs that constitute an individual's worldview. The world of *Rashōmon* settles on the barely distinct line between incommensurability and understanding, it captures something of our regular experiences of agreement and disagreement, each of which must assume the possibility of the other. Contested events draw us back to that line and tell us that once the biases and misjudgments have been set aside there is still something in those disagreements that reflects the fragile grounds of our social world.

[12] This is the extent to which Brandom adopts a sense of interpretation in spite of the Wittgenstein's observation that our ground-level mastery of linguistic properties does not consist solely in the capacity to interpret (Brandom, 1994: 509).

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Jan von Plato, *Elements of Logical Reasoning*, Cambridge University Press, 2013, 264 pp., ISBN 978-1-107-61077-4.

Andrew Parisi

University of Connecticut, Storrs, United States
andrew.parisi@uconn.edu

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Elements of Logical Reasoning by Jan von Plato is a welcome addition to textbooks on logic. It covers both introductory and more advanced topics sprinkled throughout with points of philosophical and historical interest. It is a refreshing introduction to the subject from the point of view of proof theory. I therefore fully endorse this book. Its main object of study are deductions in a formal language. This is in contrast to most textbooks, which take models or valuations to be the primary object of logical study. Intuitionistic logic is better suited to a proof-theoretic setting than classical logic. Because of certain features of intuitionistic negation finding the proof of a proposition requires less guesswork than classical proof of a proposition might. Intuitionistic logic differs from classical logic in its denial of the logical truth of the law of excluded middle, i.e. the claim that every sentence is either true or false. This approach to the subject will be fruitful for students coming to logic for the first time and for those who are interested in non-classical logics.

The book is divided into four parts: First Steps in Logical Reasoning, Logical Reasoning with Quantifiers, Beyond Pure Logic, and Complementary Topics. The number of chapters per part ranges from two to seven, the first part being the longest.

Chapter one is a discussion of inference and deduction without any formalization. The second and third chapters succinctly and clearly introduce a formal language whose logic is the study for the rest of the chapter. A for-

mal language is a set of sentences constructed by an inductive procedure. The base step adds an infinite number of sentences which have no sentences as parts, called atomics. The expressions that are being studied are ones that produce sentences from sentences: a conditional (→), a negation (¬), a conjunction (∧), and a disjunction (∨). For any two sentences of the language A and B, ($A \rightarrow B$), ($\neg A$), ($A \wedge B$), and ($A \vee B$) are all also sentences of the language. This definition of a formal language is standard and it or some variant of it would appear in any logic textbook. These correspond roughly to the English sentences 'If *A* then *B*', 'It is not the case that *A*', '*A* and *B*', and '*A* or *B*' respectively. Nothing else gets to be a sentence except by being atomic or through the above condition.

A logic is a set of sentences, the set of sentences that are logically true with respect to a language. A calculus is a set of inferences that generate a logic for a language. A logic for the formal language introduced above is generated by saying which sentences can be inferred from which others, i.e. specifying rules of inference for sentences of the language. A small set of inferences are taken as unjustified and other good inferences are justified in terms of that small set. For instance, the rules governing any sentence of the form $A \wedge B$ are that if *A* and *B* are true, then $A \wedge B$ is true and if $A \wedge B$ is true, then *A* is true and *B* is true. The first of these clauses is called the introduction rule for conjunction (∧) the second is called its *elimination rule*. This is of philosophical interest because the meaning of ∧ is determined by these rules. The same holds for any of the other expressions of the language. The thesis that the meaning of an expression is at least determined by the contribution it makes to good inferences is called inferentialism. If inferentialism is true, then notions like reference and truth play a secondary role in a semantic theory while inference and validity take the spotlight.

The inferentialist theory advocated by von Plato takes the introduction rules for an expression to be primary for determining the meaning of that expression. He offers an explanation of how the elimination rules can be in some sense 'derived' form the introduction rules. This is a rich and fertile idea that began with Gentzen and saw further development in the work of Prawitz (see *Remarks on Some Approaches to the Concept of Logical Consequence*, Synthese (1985)) and Dummett (see *The Logical Basis of Metaphysics*). This view is referred to by Dummett as *justificationism*.

A deduction of a sentence *S* from a set of sentences Γ is a set of sentences

arranged so that each sentence follows via an introduction or elimination rule from the sentences directly above it, is an element of Γ that features as an assumption, and of which *S* is the last sentence. A deduction is normal iff all the major premises of elimination rules occur as assumptions. A set of inference rules for a language is normalizable when for any deduction, normal or otherwise, of a sentence there is a normal deduction of that sentence. These definitions are relatively standard. As von Plato presents, these notions would be adequate for exploring natural deduction systems as they are presented in other textbooks. Taking justificationism as the starting point explains the emphasis of normalization in the book. In a normal deduction the only applications of elimination rules are to sentences that have not been generated by introduction rules, all of the real work is done by the introduction rules. On a justificationist picture of meaning normalization explains how the introduction rules are semantically primary.

In addition to being philosophically important normalization results entail that the logic in question has other interesting properties. It is therefore fitting that von Plato gives normalization results a key role to play throughout the textbook. In a normal deduction every sentence is either a sub-sentence of an open formula or the conclusion of the deduction. This is a useful feature of a calculus for computation. If a computer were trying to search for a deduction of a sentence it would only have to search that sentence's sub-sentences or potential open sentences in the deduction. Computationally this makes a logic much more manageable. In intuitionistic logic a normal deduction that ends in a sentence of the form $A \vee B$ ends with a rule of disjunction introduction, i.e. If A is true or B is true, then $A \vee B$ is true. It follows that if $A \vee B$ is a logical truth, then either A is a logical truth or B is a l' here append 'ogical truth' to 'l'. This means that proof-search is simplied when the conclusion of the deduction in question is a disjuction. From a philosophical perspective it is a guarantee that the normal deduction of a disjunction does not rely on rules governing any other connectives. This nice feature is distinctive of intuitionistic logic. It fails for classical logic.

A sequent calculus is another way to present a logic. Von Plato introduces sequent calculi in the service of better understanding natural deduction systems. While this is appropriate for this textbook it is worth mentioning that sequent calculi are of great proof-theoretic interest in their own right. Instead of inferences moving from sentences to a sentence, as in a natural

deduction calculus, in a sequent calculus inferences move from sequents to a sequent. A sequent is a set of sentences one of which is the conclusion and the rest of which are the premises. Sequent calculi are helpful in proof search because a sequent contains not only the formula to be proved but the open sentences or assumptions on which it relies. Classical logic is better suited to a sequent calculus than a natural deduction calculus. A particularly positive feature of von Plato's presentation of this material is that it makes this clear by presenting natural deduction calculi for both intuitionistic and classical logic first. Only later does he present sequent calculi for both logics. It is clear in the natural deduction setting the elimination rules for negation are not appropriate given its introduction rule.

The last chapter of Part I includes a discussion of what are commonly called the semantics of propositional logics. It describes truth tables for classical logic and presents a concise description of Kripke semantics for intuitionistic logic. It also points out some oddities that occur when the classical conditional is combined with classical disjunction. For instance, $(A \rightarrow B) \vee (B \rightarrow A)$ is a classical logical truth. Von Plato calls this 'Dummett's Law' and draws attention to it in order to pose a problem for classical logic. It is not however clear that this is a mark against classical logic. Whether or not this is a plausible logical truth depends on what reading of logical truth is appropriate to the logic in question. Each logic comes with a different understanding of what the sentences of its language mean. In intuitionistic logic the most natural reading of the sentence $A \rightarrow B$ is as saying that there is a transformation of a deduction of A to a deduction of B. Given this reading Dummett's Law says that for any two sentences there is a way of transforming a deduction of one into a deduction of the other. This is implausible. Take the two sentences 'It is raining' and 'Kangaroos are mammals'. There does not seem to be any way to transform a deduction of either one into a deduction of the other. If the most natural reading of $A \rightarrow B$ for a logic is as saying that there is a transformation of a deduction of A into a deduction of B, then Dummett's Law ought to fail. That reading is thus not appropriate for classical logic given its logical truths. Suppose that $\Gamma \vdash A$ is a valid classical argument. The most natural reading of that fact is that it is impossible to make all of Γ true and make A false. In a case where Γ is empty this means that there is no way to make A false. To put the point in other words if A is a classical tautology, then there is no way to make A false. Thus, this

is different from the intuitionistic reading of logical truth. Since Dummett's Law is logically true according to classical logic the intuitionist reading of $A \to B$ sketched above cannot be the one appropriate for classical logic. The classical reading of what it is for a sentence to be logically true makes Dummett's Law more plausible.[1] According to the classical reading, that Dummett's Law is a logical truth says that it is impossible to make $(A \to B) \vee (B \to A)$ false. If that's the case, then there had better be no way of making both $A \to B$ and $B \to A$ false. To establish that there is no way of doing this suppose that there were. In order to make a sentence of the form $\varphi \to \psi$ false it must be that φ is true and ψ is false. Under the above supposition A would be true and B false and B true and A false. But that is clearly impossible, so there is no way to make $(A \to B) \vee (B \to A)$ false. Once the appropriate reading is given to each logic it is possible to see why Dummett's Law is not an intuitionistic logical truth while it is a classical logical truth.

Part I concludes with a philosophical discussion of the history and philosophy of logic. Of particular interest is von Plato's discussion of the difficult question of whether truth is conceptually prior to proof or proof conceptually prior to truth. Intuitionistic logic is well-paired with a philosophy that takes the laer route. The above reading suggests that intuitionistic connectives are best read as directions for transforming deductions into a deduction. Classical connectives are best read as stating relations between the truth and falsity of sentences. In this way classical logic takes truth to be primary. A proof is a guarantee that the premises of an argument cannot be true while the conclusion is false. Von Plato's discussion of this is brief but he brings the reader into close contact with some of the most difficult and interesting philosophical questions about what the world is like and the relationship of knowers to the world. Different logics answer those questions differently. Von Plato sums up the role of the study of logic in answering those philosophical questions by saying that it is "epistemology in laboratory settings".

Part II introduces predicate logic. Predicate logic studies the expressions, $\forall$ and $\exists$ called the Universal and the existential quantifiers. These

[1] In fact, an intuitionist agrees with this claim. A sentence A is intuitionistically impossible to make false just when $\neg\neg A$ is true. But $\neg\neg ((A \to B) \vee (B \to A))$ is an intuitionistic logical truth.

are roughly translated as 'for all' and 'there is' respectively. Von Plato helpfully cites two explanations for the meaning of the universal quantifier. He attributes to Tarski the view that a sentence of the form $\forall x\varphi$ is true in a domain of objects iff φ is true of each element of the domain. One of the problems that he cites with this definition is that it presupposes an antecedent understanding of what a domain of objects is. The alternative account which von Plato attributes to Frege and Gentzen is that a sentence $\forall x\varphi$ is provable iff φ with y substituted for x is provable for an arbitrary y. As stated the above account does not obviously require an antecedent grasp of a domain of objects, though in the case where y is a name this is less certain. This discussion is again related to the question of whether truth is conceptually prior to proof or vice versa. The Tarskian view appears to take truth as primitive in this order while the Frege-Gentzen view takes proof as primitive. While this distinction may be helpful for some philosophical purposes, it should be noted that what exactly the views of Frege, Gentzen, and Tarski on quantification are is controversial.

Part II contains proofs of some interesting features of natural deduction and sequent calculi for both intuitionistic and classical logic. It concludes with a discussion of the semantics of quantified logic. A rough description of the model theory for first-order logic is given. Of particular interest is that the discussion in this part proceeds without mention of the notion of "set" or other tools that are commonly employed in model theory. In fact, most of the proofs done with models are done in a proof theoretic metalanguage. This is entirely appropriate for the book, deductions are the primary object of study. The notion of a Kripke model for first-order intuitionistic logic is presented in an equally succinct way. The main point of presenting these is to bring to light the difference between classical and intuitionistic accounts of quantification. It is noteworthy how well von Plato accomplishes this task. He points out that intuitionistic domains of quantification expand as more entities are discovered. Classical domains of quantification are static. The intuitionistic universal quantifier rangers over all the expansions of the domain. This is not the same as ranging over a static domain of entities as the classical quantifier does.

The final two parts of the book deal with more advanced topics in proof theory. Part III covers identity and number theory and Part IV covers normalization and cut elimination.

Identity is introduced first into the natural deduction calculus for intuitionistic logic via axioms. These are shown to be equivalent to a set of rules that define the identity relation. Given that one of the main themes of the book is inferentialism of the sort discussed above this is a fitting approach to offering an account of identity. After a discussion of various attempts at defining identity there is an explanation of sense and reference. Since this is a philosophical review it is only appropriate that some philosophical dispute is dealt with. The sense of an expression is said to be the way that it is built. For instance the sense of '3 x 6' is given by the sense of multiplication and the senses of '3' and '6'. The reference of that expression is the reference of '18', whatever that may be. This explanation of sense is helpful for complex terms but it does not immediately provide an account of the sense of expressions which are not built up out of anything else. Von Plato uses a geometrical example to state in more detail what the sense of an expressions is. Let $p(x, y)$ be a function that denotes the line parallel to x that intersects y. Let l and m be lines and a a point. The function $p(x, y)$ allows us to construct other lines, $p(l, a)$ and $p(m, a)$. Suppose further that m and l are parallel. By the Euclidean axiom of parallels, the line $p(l, a)$ coincides completely with the line $p(m, a)$. The senses of the expressions '$p(l, a)$' and '$p(m, a)$' are different even though they refer to the same line. Von Plato suggests that identity is identity of construction. This is a revisionary use of the term 'identity'.[2] While this may work as an account of the sense of some descriptive terms it does not immediately suggest an explanation of how expressions like 'is a car' or 'Aristotle' come to have a sense or how their senses might be identified. Following the geometrical discussion von Plato suggests that if an identity is true, then it should be immediately recognizable that it is true. This is a bold claim that is not in step with much of contemporary metaphysics. Neither of those count against the truth of that claim but leave one wanting more explanation. This is, of course, a minor point that in no way detracts from the main thrust of the text.

Part III concludes with a discussion of the Peano axioms and how they may be added to the existing systems of natural deduction. Again axioms

[2] Although there may be an antecedent to this use of the term 'identity' in one interpretation of Frege's account of sense.

are transformed into rules of inference. Several different accounts of the natural numbers are given including Robinson Arithmetic and Heyting Arithmetic. The first chapter of Part IV is the most challenging of the book. The topics covered in this section of the book will be surveyed only, with the details left to the side. It may be helpful to some readers to remark that this material could be taught in an upper level undergraduate class or a beginning graduate class in proof-theory. It introduces in a cogent way the mechanism that governs inductive proofs. It also covers a proof of normalization for the natural deduction calculus for intuitionistic logic. Following this is a discussion of the Curry-Howard isomorphism according to which there is a precise correspondence between certain programs in a computational setting and proofs in a mathematical setting. A cut elimination theorem for intuitionistic logic is proved by means of a correspondence between normal deductions and cut-free deductions.

The book concludes with a brief history of deductive logics beginning with Aristotle and continuing through to Heyting. It traces the notion of a syllogism from Aristotle to Boole. Boole's work made it possible to represent syllogisms mathematically and to offer a mathematical treatment of hypothetical propositions. A nice introductory discussion of the history of algebraic approaches to logic is presented and connected to the axiomatic approaches of Frege and later Whitehead and Russell. Von Plato conjectures that Heyting's axioms for intuitionistic logic were the kernel that lead to the growth of Gentzen's systems of natural deduction and sequent calculi.

This is an excellent advanced textbook in logic. It could be easily adapted to guide an upper level undergraduate or first year graduate course in logic. The topics covered at the beginning are introductory enough that students who have not seen proof theoretic methods in logic before – or any logic at all – will be able to grasp the material. The book concludes with proofs that are appropriate for an advanced class in logic. Sprinkled throughout are interesting philosophical discussions of proof and truth and their relation to intuitionistic and classical logic.

Hans V. Hansen, Ed., *Riel's Defence: Perspectives on His Speeches*, McGill-Queens University Press, 2014, 331 pp., $32.95 (pbk), ISBN 97807773543362.

Lisa J.M. Poirier
DePaul University, Chicago, United States
lpoirier@depaul.edu

Benjamin Krueger
Northern Arizona University, Flagstaff, United States

Deborah Seltzer-Kelly
Wabash College, Crawfordsville, United States

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In 2010, the year of the 125th anniversary of Louis Riel's trial for high treason, a conference sponsored by the Centre for Research in Reasoning, Argumentation, and Rhetoric was held at the University of Windsor. This conference led to this volume of essays edited by Hans V. Hansen. The contents of the book both refine and expand upon the papers delivered at the CRRAR conference, and thus are mostly contributions from scholars in the disciplines of rhetoric and communication, philosophy, and legal history.

The volume begins with the editor's introduction to the issues and events relevant to Riel's trial, as well as a brief overview of each contributor's essay. Hansen has also contributed newly paragraphed and annotated texts of Riel's oft-anthologized address to the jury, as well as his lesser-known post-verdict but pre-sentencing address to the court. These thoughtfully edited texts are themselves contributions to the literature on Riel's trial, and will be especially valuable to students; they not only identify the persons mentioned in the speeches, but also indicate editorial choices in regard to punctuation and paragraphing.

The editor positions the first two essays by Morton and O'Byrne as introductions to Riel's historical context, and indeed, their authors' respective disciplinary specializations in military history and law and government shape the focus of the volume. The first essay, by military historian Desmond Morton, reflects his longstanding engagement with the issues surrounding Riel's trial. His contribution provides an overview of the themes with which many of the subsequent essays engage, and he cautions against presentism as he provides summaries of the status of Riel's citizenship and other issues relevant to Canadian legal procedures and strategies in 1885. Morton introduces the topic of Riel's sanity, and reminds readers that one must attend to the ways in which Riel's psychological status was evaluated prior to the trial by experts who concurred that although Riel was rational and accountable for his actions because he could distinguish right from wrong, he was utterly delusional on the topics of politics and religion. This framing of Riel's state of mind is taken for granted in many of the essays to follow. While Morton notes that twenty-first century secularists are more likely to see Riel as an advocate for the Métis nation than as a mentally disturbed person, in general, the essays in this volume do not problematize the pathologization of Riel. Instead, the essays in this volume are generally devoted to analysis of Riel's rhetorical strategies.

Nicole O'Byrne's contribution reflects her expertise in matters of law and government, and emphasizes Riel's role as one of the founders of Manitoba, dedicated to securing its political autonomy. She foregrounds Riel's contributions to the 1870 constitutional convention at Fort Garry, in which he argued for provincial rather than territorial status for Manitoba on the grounds that it would provide greater autonomy in regard to the control of the natural resources that, under the British North America Act of 1867, would then be considered its public domain, and would better protect the political and cultural interests of the Red River Métis. O'Byrne's essay is cogent, and her recognition of Riel's legal and political acumen contributes a great deal to the understanding of Riel's motives and loyalties. However, specific attention to indigenous understandings of the common use and ownership of land could have substantially enhanced both the strength and the scope of her argument.

The next three chapters in the volume offer rhetorical analyses of Riel's trial speeches. Thomas Flanagan's contribution to the volume is a contex-

tual Aristotelian interpretation of Riel's speeches. At the outset, Flanagan asserts that Riel's speeches were instrumental failures because they failed to persuade the jury to acquit him or to recommend clemency. Flanagan believes that Riel emphasized too many themes in his first speech to the jury, resulting in a rambling and incoherent presentation. Furthermore, Riel failed to adapt adequately to the realities of arguing his case in a criminal trial court, preferring instead to hope for a political trial in front of the Supreme Court. The chapter concludes with a quantitative analysis of Riel's use of the Aristotelian proofs of ethos, pathos, and logos in the two speeches. This analysis would benefit from further development. For example, Flanagan argues that Riel's claim to prophetic authority undermined his ethos because it required him to attack the insanity claims built by his attorneys. Yet Flanagan does not sufficiently define prophetic authority beyond noting how Riel himself defined his mission. Readers, particularly those unfamiliar with Flanagan's previous work on Riel, would have benefited from a more precise explanation of what is meant by prophetic authority here.

In contrast, Christopher Tindale's chapter provides a close textual reading of Riel's speeches. The chapter begins by situating Riel's speeches within the genre of trial defense speeches. Within this framework, Tindale analyzes Riel's defense strategies using rhetorical concepts drawn from Aristotle and Belgian philosophers Chaim Perelman and Lucie Olbrechts-Tyteca. Tindale sees intertextual allusions between Riel's trial speeches and the trial of Socrates. Although Tindale concedes that he cannot prove with certainty that Riel's parallel to Socrates was intentional, there is little doubt that Tindale believes a strong likelihood exists, given Riel's education at the Collège de Montréal. Ultimately, Tindale concludes that although Riel's speeches failed to persuade the jury, his arguments nevertheless "are designed to make the strongest case in the circumstances, and in that sense, they serve him well and he does himself credit" (p. 133).

Hans Hansen's chapter combines stasis theory with informal logic to provide a descriptive account of Riel's speech to the jury. Noting that previous scholarly accounts have regarded Riel's speech as poorly ordered, Hansen nevertheless asserts that a distinct narrative and logical order can be observed in the speech. From a narrative perspective, Hansen divides Riel's speech into eleven parts. Riel's narrative appeared disordered because it

had to respond to both the Crown's case and the defense pursued by Riel's own lawyers (p. 140). Hansen next asserts that Riel's speech has logical order, based on four argumentative standpoints that support his claim he should be found not guilty. Although Hansen's argument is interesting on a methodological level, he does little to show how it connects to broader historiography about Riel.

Kerry Sloan approaches her analysis through a vignette illustrating the complexities and border crossings inherent to Métis identity and to her own analysis--which is grounded in her own family's legacy, as well as her academic training in indigenous legal history. She explores the connections between Riel's own views of Métis rights, and the ways in which he advocated for multicultural immigration into the North-West, with a focus upon the larger implications for those views for the "'boundary-bashing' realities of his own life and Métis history" (p. 169). Sloan's explication of the messiness of Métis identity, its continually evolving linguistic, cultural, and ethnic sources, and the elements of the Manitoba Act in relation to these forces offer enormous insight into Riel's assumptions and goals in his speeches. The greatest strength of Sloan's argumentation as well as her pivotal contribution to this volume is her central contention that acknowledging and exploring the inherent complexity, the "third space" of Riel's Métis identity and experience is critical to any understanding of Riel's words and actions, and especially to his visionary perspective on immigration and land distribution.

Interestingly, while noting Riel's own conviction that Métis land rights drew from indigenous land rights, and mentioning the Red River uprising as the genesis of the formation of a provisional government, Sloan does not fully explore Riel's argument that the 1885 uprising was ""the result of fifteen years' war"" (p. 173) that had elapsed since the Red River uprising. Riel had, in fact, spent those 15 years in the U.S., living and working within the area of the "Plains Wars" between the American Plains Indians and the U.S. government, including the Battle of the Little Big Horn in 1876, with the ongoing unrest afterward. Stirred by the introduction of Circle Dance by the Paiute, religious resistance and collective religious action were already sweeping through the Red River region and surrounding areas long before they culminated in the Ghost Dance in 1890, and some degree of consideration for the effects of these events on Riel's evolving ideas seems relevant.

Paul Groarke turns to a substantive analysis of the merits of Riel's case in his essay, focused upon the two substantial defenses Riel offered, and noting that "the remarkable fact is that this has largely been overlooked" (p. 204). Riel's arguments, as Groarke outlines clearly, had precedent in the doctrine of lawful rebellion, relevant to both England's Glorious Revolution and to the American Revolution. In both cases, a government charged with the protection of peoples' liberties had instead become an oppressor and attacked the people. Groarke's analysis of Riel's speeches reveals a series of arguments grounded in British and U.S. precedent, a facet that was completely ignored, not only by the government lawyers appointed to defend him, but by much of current scholarship on the trial. In Groarke's opinion, much of this disregard for the merits of Riel's defense is a product of Thomas Flanagan's "formidable" influence through Flanagan's argument that Riel's choice of defenses was completely hopeless given that it had no hope of prevailing. As Groarke assesses this line of discussion (which pervades many of the essays in this volume), "it is no answer to suggest that the fact of political power is sufficient to justify itself" (p. 213).

Jennifer Reid, an historian of religions, finds in Riel's speeches an ontological critique of modernity, in which colonialism is understood as a religious problem with a religious solution. Reid notes that while Riel did not attack the fundamental existence of a Canadian state, he did resist a state "that systematized a disequilibrium of power" (p. 253) as well as the ideology of modern state creation that rests upon and is legitimated by that same state. Reid contends that Riel opposed the replacement of "one universalizing structure (God) with another (state sovereignty)" (p. 256). Instead, Riel appealed to the Law of Nations (international law) under which numerous sovereign states would have protection, and describes his plans for a Canadian confederation, in which the Metis and First Nations would retain their legitimacy and autonomy as Nations. For Riel, writes Reid, "a state that regarded itself as its own ultimate authority was a potentially destructive geopolitical entity" (p. 260). Riel's geopolitical vision was grounded in his religious vision, and was thereby sanctioned by sacred power.

The notion of responsibility provides the focus for Benjamin Authers's essay, which is focused upon Riels' efforts to resist his attorneys' characterization of him as insane and thus, under the law, not responsible for his conduct. Authers's examination of the tensions and anxieties surrounding

discussions of responsibility and sanity/insanity is framed by contemporary literary works, including Mackie's *The Rising of the Red Man: A Romance of the Louis Riel Rebellion*, first published in 1902. Riel, in seeking to frame himself as "a rational man acting in response to an 'irresponsible, and consequently insane government," was, in Authers's view, interacting with a larger-scale cultural and legal imbroglio. An examination of how Riel was perceived, per Authers, is more revealing of larger perceptions of the Métis people, and of the underclasses generally, than of Riel's personal situation. Riel, in his "barbarism and irrationality" (p. 231), was considered to be dangerous to public order, and thus served as an exemplar of a self-deluded and immoral charlatan fomenting unlawful resistance to the rightful ruler. Rather oddly, Authers, while on the one hand considering the stereotyping of Metis people as uncivilized and driven by base and irrational passions, neither frames his analysis in any larger consideration of perceptions and treatment of indigenous peoples, nor incorporates any postcolonial perspectives that would help to illuminate the colonial ambitions of the Anglo-Canadian elite.

Introducing Lyotard's concept of the *differend* to his analysis, Maurice Charland considers the degree of incommensurability between Riel's own system of meaning, and the assumptions and perspectives of the court system that tried him. As a result, Charland argues, while Riel saw himself as having full membership in the society that sought to convict him of treason, and further believed he had a right to a hearing before Canada's Supreme Court, in fact he lacked standing within that system in crucial ways. For example, Riel's sense of his political role and his resulting ability to speak for the Métis people was not recognized by the prevailing system. He was, in the eyes of the law, the accused, and further an accused who was considered not to be competent to speak for himself in court–rendering him unable to do anything beyond defending himself against the accusation of treason, as well as his own attorneys' attempts to label him as insane.

Like other contributors to this volume, Charland invokes the Aristotelian notion of rhetoric as "the art of determining the available means of persuasion in a given case" (p. 272), on which ground Riel fails to function effectively on even a minimal level, since he fails to account for his setting in constructing his defense. Per Charland, Riel needed to rhetorically convert the court to the view that he was not the accused, but rather a plaintiff

who had been injured by the government's actions– a tactic requiring that he establish Aristotelian *ethos* –respect for his standing to make his case. Riel's tactic, Charland argues, failed because he did not attend to the vital element of prudence. Charland's assessment is that, while the jury found Riel to be rather sympathetic in terms of his genuine goodwill, he nonetheless had displayed exceptionally poor judgment and therefore had to be convicted. This characterization, like that of other analyses in this volume, returns Charland to Flanagan's perspective, rooted in the notion of political power as the framer of justice.

Turning to a Socratic analysis, as did Tindale, Louis Groarke's chapter is "partly an exercise in argumentation theory and partly an exercise in applied ethics" (p. 280). Acknowledging that this kind of comparison across vast differences in culture and time is not ordinarily done any longer in academic discussion, Groarke nonetheless believes it is useful in this case because objective evaluation of the two historic figures using common criteria allows for greater fairness, absent the influence of contemporary moral and political ideologies. Groarke outlines the differences in textual evidence available to document each figure, acknowledging that the documents on Riel's case are far more revealing of the complex and fallible human being than are Plato's portrayals of Socrates.

Groarke then characterizes the two men as both having been judged to be troublemakers -- undermining authority and threatening public peace in their certainty that they had a heroic mission to fulfill. In Groarke's view, while Riel's speech was less self-righteous than Socrates', neither was effective, and both completely ignored the judicial context, with disastrous effect. Per Groarke also -- and despite the fact that this is often ignored -- Socrates shared with Riel a religiously based conviction of the justice of his message. Discussion of this last aspect of the two men's personal groundings occupies a significant portion of the chapter, as do considerations of their roles as social outsiders driven by deep necessity. Ultimately, Groarke concludes that to a significant degree Riel must be seen as "Socrates gone mad," "a mentally ill man who was obliged, by his own conscience, to do what he did" (p. 310) –and thus as a man convicted and executed unjustly.

As did other authors in this work, Louis Groarke examines Riel's case in terms of the pathology of the individual, accepting at face value the inevitably –if not explicitly the rightness– of the contemporary system of gov-

ernance and justice. To take Socrates's critiques seriously would, for his accusers, have served to comprehensively undermine the entire foundation of Athenian society. Likewise, to take Riel's arguments seriously was then, and still is today, to profoundly question if not to completely undermine the entire conduct of Canada's government toward indigenous and Metis peoples.

The essays by Paul Groarke, Sloan and Reid interrogate and problematize the normativity of these Anglo-Canadian structures, and in so doing, provide the most promising paths toward a greater understanding of Riel's argumentation as well as his larger significance in Canadian history. In contrast, the essays that do not specifically attend to Riel's historical, economic, and social contexts fail to contribute substantially to a more nuanced understanding of the content and intent of Riel's argumentation. Curiously, all of the essays in this volume, including the essays that do address Riel's socio-historical location, privilege his seminary education and his legal experience in Quebec as well as his political leadership in Manitoba, but neglect his experience in the United States–particularly the ways in which indigenous land rights cases in the U.S. Supreme Court had developed in ways that seem likely to have influenced Riel's beliefs about which arguments might sway a Canadian court.

Despite its shortcomings, this volume of essays is relevant to anyone interested in exploring Riel's speeches and other narratives associated with the continuing colonial relationship between Canada and its indigenous and Métis peoples. While the colonialist context that made it impossible for Riel to argue successfully for his innocence and freedom remains unproblematized in many of the contributions, even this fact recommends the volume to readers who wish to understand the operations of colonizing rhetoric. This volume gestures, sometimes deliberately and sometimes unwittingly, toward a future for Riel studies, Métis studies, and argumentation studies, and that future must involve decolonization – especially of our analytic methodologies.

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Contents

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