

ISSA Proceedings 1998 - A Few Remarks On The Individuation Of Arguments



1.

“An argument,” Irving Copi tells us in a much-quoted passage, “is any group of propositions of which one is claimed to follow from the others, which are regarded as providing support or grounds for the truth of that one.”**[i]**

Copi’s usual elegance may have temporarily deserted him in the remark quoted, and his definition may be less explanatory than might be desired, but the general idea is clear enough – or at least clear enough for the great majority of people in this room to reject it. Where the Amstel flows and all pragmas are dialectical, propositional definitions of argument, such as Copi’s, have about as much purchasing power as the Indonesian rupiah. Not that that’s necessarily a mark – or even a guilder – against them, and not that that means that propositional views in general, or Copi’s in particular, aren’t worth exploring. Indeed, I think that examining what this Snidely Whiplash of argumentation theory – for so he’s many times considered – says almost always repays attention, and though my focus won’t be his definition of an argument so much as the related issue of the individuation of arguments, I think his views help to clarify both issues.

But let me introduce character number two in this little drama before getting back to Copi, character number one.

A more discourse-oriented definition of argument has been advanced by another arch-villain of argumentation theory, but one not nearly as often targeted for attack and refutation. According to Monroe Beardsley, “an argument is a discourse that not only makes assertions but also asserts that some of the assertions are reasons for others.”**[ii]** From the pragma-dialectical perspective, Beardsley’s definition may lack the shelter and clothing of the pragma and the dialectical, but at least it partakes of that staff of argumentative life, discourse. More striking than that single but pervasive difference between the two, however, that single but pervasive difference between Copi and Beardsley, are the similarities of their views. Substitute ‘set of propositions’ for ‘discourse,’

‘propositions’ for ‘assertions,’ and ‘claims’ for ‘asserts,’ and Beardsley’s definition coincides almost precisely with Copi’s. If we bracket the discourse – or rhetorically- oriented elements of Beardsley’s definition, in other words, there is little difference between their views.

2

Which only goes to show that two people can basically agree on one fundamental issue – what an argument is – but profoundly disagree on other fundamental issues, such as what the identity of an argument consists in, and how to individuate arguments. To be clear about what I’m referring to here: the identity of an argument I take to be its self-sameness, the fact, in a sense, that it is what it is – namely, an argument, and, moreover, that argument — and not another thing, not even another argument. I know that’s not very enlightening, but it’s hard to say much more, on a general level, about what the philosophical issue of identity is than that it’s a metaphysical issue and concerns what constitutes, in the most important sense, the fact that a thing is what it is and not some other thing. Bishop Butler would no doubt be proud of me and give me his blessing for my remarks about identity, even if they’d win no awards for advancing the educated public’s understanding of philosophy. Anyway, when discussing the identity of a thing, philosophers generally speak of identity conditions for that thing, and many times the kind of a thing whose identity is being specified is built right into the statement of those conditions. In the case at hand, a typical statement of identity conditions would go something like this: x is the (numerically) same argument as y if and only if.....

Closely related is another metaphysical issue, that of individuation. When it come to arguments, the issue here isn’t so much what constitutes singleness as what constitutes diversity, or many-ness. Less cryptically, the central question of the individuation of arguments is: What makes discrete, numerically distinct arguments discrete, numerically distinct arguments? Obviously the two questions are related: to know what makes a given argument the argument it is would tell us what makes discrete, numerically distinct arguments exactly that – discrete, numerically distinct arguments. To a lesser extent, the converse holds as well: to know what makes numerically distinct arguments such would lend at least a bit of a hand in telling us what makes an argument the argument it is.

Lastly among these preliminary remarks, I should also mention that the questions of identity and individuation frequently have their closely related, but numerically

distinct, epistemological cousins stand in for them. The ersatz relatives in question are: How do we know that arguments x and y are one and the same? and How can we tell that we're dealing with one, two, three, or however many arguments? (And we also could, of course, ask epistemological questions about our general identity and individuation conditions: How do we know that they're correct?)

3

Back to our principals, Copi and Beardsley. A minute ago I said that Copi and Beardsley basically agree about what an argument is, on what makes something an argument. (This is another way of saying that their definitions are similar.) Their views on individuation, however – I won't be saying much more about identity from now on – are markedly different. The definition shared by Copi and Beardsley answers part of the question of the identity of argument – an argument, in contrast to a non-argument, has propositions that figure in it as premises, and so on – but it doesn't go the full distance, it doesn't tell us what the unique identity or singularity of particular arguments consists in. Nor does it answer the question of individuation: By what principle do we, or should we, count arguments? And, in fact, as already mentioned, Copi and Beardsley have very different views on that matter.

Before I go on to expose and criticize them, and also – surprise of surprises – defend and, in a sense, recover them, I have to make two other comments. The first is that Copi and Beardsley don't discuss individuation under that heading or, indeed, under any heading whatsoever. Their brief remarks are embedded in the discursive prose of logic texts, texts which are intended to teach students basic concepts, techniques, and skills, and they have neither world enough nor time to linger over distinctly theoretical matters. Philosophical niceties, they perfectly well know, have to await occasions like this one, that is, the professional literature. I'll return to the point later, at the end of this paper, as it will make some difference to my final assessment of their views.

Second, and perhaps surprisingly, neither have argumentation theorists paid much attention to the matter. Shame, shame! Since the field is all about arguments, since the metaphysics of arguments is bound to affect other issues, both within and without argumentation theory, and since, after all, individuation is a central theoretical concern – well, I expected a bit more. As it is, my admittedly cursory inspection of the literature has left me with a handful of nothing – except a hazy memory that Douglas Walton briefly discussed

individuation in one of his books.**[iii]**

4

What, then, are Copi's and Beardsley's views on individuation? Copi straightforwardly declares that "argumentative passages often contain more than a single argument," which certainly seems correct. The simplest arguments, he says, contain a single premise which (purports to) support a conclusion:

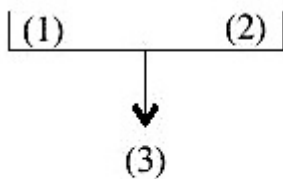
(1)

↓

(2)

[A]

Sometimes, however, an argument contains more than one premise in support of a conclusion. When the premises work together – and let's consider the simple case, an argument with only two premises – such an argument is diagrammed as

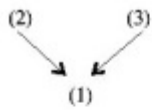


[B]

[B] is also a single argument, Copi thinks. Suppose, though, that two premises operate independently of each other. Suppose, in other words, that we have an argument like

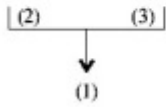
- 1.[The time for a national high-speed passenger railroad system has come.]
2. [Airlines cannot keep up, and in their frenzied attempt to do so have subjected passengers to poor service and, what is worse, life-threatening conditions.]
3. [The upkeep costs of the heavily travelled interstate highways, never intended or constructed to take such a pounding, are soaring.]**[iv]**

According to Copi, this argument should be diagrammed as:



[C]

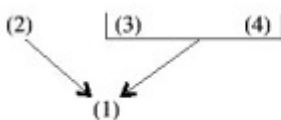
While some people, such as myself, may think it preferable to diagram it differently, namely, as



[D]

Let's just assume that Copi's diagram is fine as it stands, that the two premises do operate independently – after all, there surely are such arguments, and that's all that really needs concerns us here – and return to the question of individuation. The question is, How many arguments does the passage, diagram [C], contain? Clearly recognizing that the question is one of individuation, Copi says that a decision must be made at this point about the 'arithmetic' of such arguments. Should we count this as a single argument with two premisses and one conclusion, or should we say that here we have two different arguments with the same conclusion? Emerging practice is to say that it is one argument with two independent premisses. The principle seems to be that the number of conclusions determines the number of arguments. So by a 'single argument' is meant an argument to a single conclusion, regardless of how many premisses are adduced in its support.**[v]** Count your conclusions, and you've counted your arguments. Thus Copi diagrams the following argumentative passage

1. [Desert mountaintops make good sites for astronomy.]
2. [Being high, they sit above a portion of the atmosphere, enabling a star's light to reach a telescope without having to swim through the entire depth of the atmosphere.]
3. [Being dry, the desert is also relatively cloud-free.]
4. [The merest veil of haze or cloud can render a sky useless for many astronomical measures.]**[vi]**

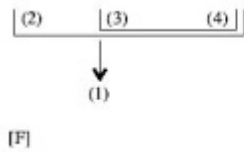


[E]

Given his principle of individuation, he's certainly right to refer to it simply as "an

argument.”**[vii]**

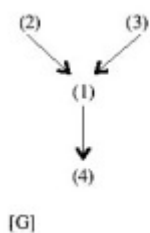
Here as before, with the earlier quoted passage, a case could be certainly made for an alternative diagram, namely



In fact, what Copi himself says points in precisely that direction.**[viii]** As mentioned earlier, though, the point shouldn't be pressed in this context. Considerations respecting argument analysis and diagramming are largely irrelevant when the issue at hand is individuation.

5

Beardsley does things rather differently. Without ever explicitly stating a principle of individuation, he considers the following passage Should it be legal for newspaper and television reporters to refuse to reveal their confidential sources? Indeed it should. For the reporter-informant relationship is, after all, similar to those of priest and penitent, lawyer and client, physician and patient – all of which have a degree of privacy under the law; moreover, if it were not protected, the sources of information needed by the public would dry up. It follows that Congress should pass appropriate legislation at once**[ix]** and refers to it as “a fairly simple argument”**[x]** – note the singular. The correct diagram of “the argument,”**[xi]** according to Beardsley, is**[xii]**



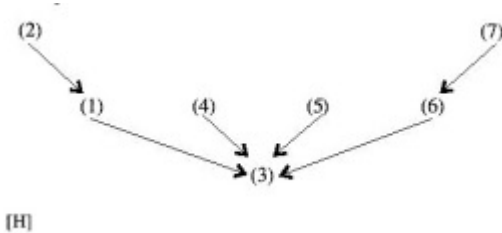
Diagrams, he adds, help us to understand the structure of an argument. This is especially true when an argument is as complex and “confused and confusing” as “the argument”**[xiii]** of the following passage:

1. [The present system of financing political campaigns is far too costly] because
2. [(under the present system it is) almost impossible for anyone who is not a millionaire or a friend (or employee) of millionaires to achieve high public office.]

This is why

3. [the alternative system, under which elections are publicly financed, ought to be adopted;] but there is also the point that
4. [the public-financing system would help to democratize the process of choosing public officials by automatically involving every citizen in the process.]
5. [It would certainly be desirable to free legislators as far as possible from dependence on particular economic interests,] as well as
6. [(it would be desirable) to equalize the opportunities of candidates,] for
7. [their merits ought to count more than their money in elections.][xiv]

Its diagram is[xv]



As Beardsley rightly notes, diagramming such a passage helps us to “recast [an] argument... in a more orderly way.” [xvi] (Yet again, however, a maverick like myself might wonder whether Beardsley’s diagram really is correct. Do (1), (4), (5), and (6) really function independently of each other in supporting (3)?)

Further evidence that Beardsley disagrees with Copi can be found in his earlier and lesser-known but more comprehensive and detailed book - and probably better book - *Practical Logic*. [xvii] *Practical Logic* is a groundbreaking book in many ways: written in 1950, it’s exhaustive and clear, and among the first books of its kind. [xviii] Among other things, it introduced diagramming into the world of informal logic. In any case, and more to the issue of individuation: in *Practical Logic* Beardsley explicitly states that “In a long argument, some of the reasons will also be conclusions, for they will be supported by more fundamental reasons,” [xix] and “those conclusions that are not themselves used to support further conclusions we shall call the *final conclusions* of the argument” [xx] - note the singular “the argument.” Seemingly in agreement with Copi, he also says that “In a *convergent* argument” - note again the singular - “several independent reasons support the same conclusion.” [xxi] Thus, along with Copi, he holds that



[C]

is a single argument. But in disagreement with him, he thinks that "In a divergent argument" – yet again, note the singular – "the same reason supports several conclusions." Thus



[D]

is a single argument for Beardsley, whereas for Copi it's two arguments, because it contains two conclusions. A final clue as to Beardsley's principle of individuation is provided by his remark that "an argument" – singular – "may be both convergent and divergent," or it may even be "a serial argument, [which] contains a statement that is both a conclusion and a reason."⁵⁷ The simplest serial argument would thus be diagrammed as



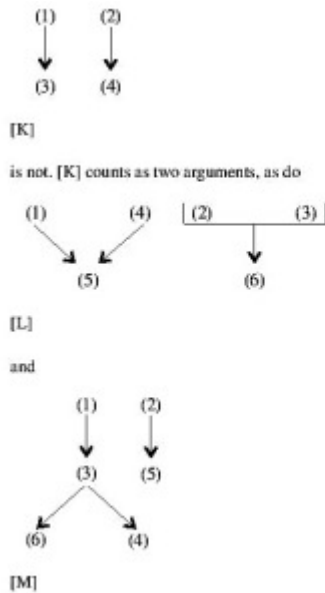
[E]

A serial argument needn't be so simple, though, Beardsley is quick to add, for not only could a further conclusion, (4), be drawn from (3), but a serial argument could also be convergent, divergent, or both in addition to being serial. All of this is certainly very much in keeping with what Beardsley says in *Thinking Straight*,**[xxiii]** but he's more explicit here – so much so that he actually comes close to stating a principle of individuation when he writes, in summarizing the chapter from which the preceding quotations have been taken:

An argument consists of

1. one or more conclusions...;
2. one or more reasons... for each conclusion;
3. one or more logical connectives... indicating that the conclusions are inferred from the reasons.**[xxiv]**

From these hints I infer – and I hope that this is an inference to the best explanation – that Beardsley's principle of individuation is that arguments are individuated by interconnected inferential structures. Count arguments, in other words, by counting interconnected inferential structures, regardless of how many conclusions or inferences there are in such a structure. Thus every diagram above, including even so complex a configuration as [H], is a single argument, according to Beardsley, but (K)



is not (K) counts as two arguments, as do (L)

and

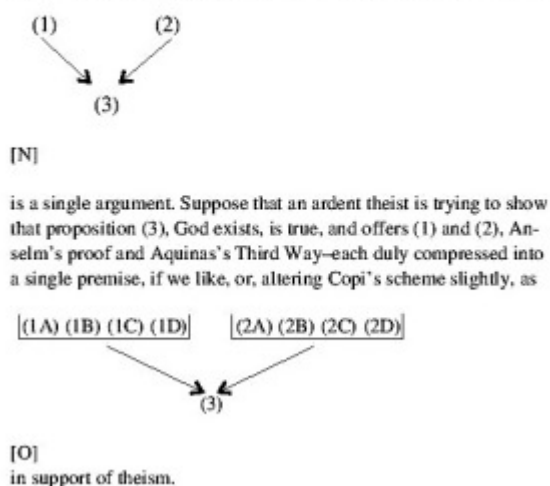
(M)

In brief, summary form, then: Copi individuates arguments by their conclusions, while Beardsley individuates them by their interconnected inferential patterns, regardless of the complexity or extent of that pattern. For Copi, there is one argument per conclusion; for Beardsley, there is one argument per interconnected inferential pattern.

6

These are both interesting views, and I'll have something to say in favor of each in a minute, but for now I want to say that, if individuation is taken strictly, neither is correct. Consider Copi's view that (N) - see *Figure N & text* - *Figure O*

These are both interesting views, and I'll have something to say in favor of each in a minute, but for now I want to say that, if individuation is taken strictly, neither is correct. Consider Copi's view that



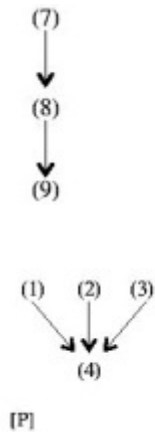
Problem number one with Copi's view is that it has the highly counterintuitive implication that [N]/[O] is a single argument. Anslem's proof and Aquinas's Third Way are two different arguments if any arguments are two different arguments. That's true irrespective of the fact that they share the same conclusion, and someone might think both cogent and thus offer both in support of theism. In point of fact, Aquinas himself propounds Five Ways, five proofs of God's existence,

and clearly thinks of them as five distinct arguments, even though they share the same conclusion, and even though all five are offered in the same context, *The Summa Theologica*, in the span of two short pages.

Reinforcing the point is a second objection, but one which focuses on argument assessment. Keeping the same example in mind, let's suppose that there are very serious problems with Anselm's proof but not with Aquinas's reasoning. The Third Way is a godly success – as opposed to an ungodly one. Is the argument – remember, this is a single argument, according to Copi – very good, very bad, or somewhere in the middle? None of these answers will do. To say that it is very good ignores the grievous problems with Anselm's proof; to say that it is very bad ignores the celestial success, the vast strengths, of Aquinas's Third Time at Bat; to say that it is somewhere in-between ignores the fact that we've been given sufficient reason for the conclusion. A verdict of "in-between" isn't a judgment made about a single argument but – as I would put it – a grade of "C" given to a passage in which two arguments appear, one excellent, the other not so good. All of this is reflected in our common belief that there can be two independent arguments for the same conclusion, two proofs or strong arguments that Walter L. Weber has rabies, that there are Russian arms in Afghanistan, that the integral of the function $f(x) = x$ between zero and one is one-quarter, or that triangle ABC is congruent to triangle DEF.

Since Beardsley would also count [N] as a single argument – it's a single interconnected inferential structure – exactly the same two objections apply to him. Like Copi, he individuates arguments in a coarse-grained way, and counts

what should be two or more as one. And I say “or more” because Copi and Beardsley would also count as a single argument, when simply interating my counterarguments above – let’s say that (3) incorporates considerations of design as an additional reason for God’s existence – it can be readily seen that the structure contains three arguments, strictly speaking. Beardsley’s problems run deeper than Copi’s, though, for he’s subject to all of the counterexamples that plague Copi, plus some that apply to him alone. Copi, for example, would say that



contains two arguments. (For Copi, the number of arguments in a passage has to be at least $n-1$, where n is the number of vertical levels or lines in the argument diagram of the passage.) I think that Copi’s right about this, though not because [Q] contains two conclusions. Beardsley, however, would have to regard [Q] as a single argument. By doing so, he invites precisely the same sorts of objections that attend considering [N], [O], or [P] as a single argument. What, for instance, are we to say about this supposedly single argument if (7) does strongly support (8), but (8) lends virtually no support to (9)? As I’ve already indicated, the correct answer doesn’t seem to be any of the three alternatives, ‘very strong,’ ‘very weak,’ ‘somewhere in-between.’ The correct answer is that [Q] isn’t a single argument at all. [Q] contains two arguments, and one is very strong, the other very weak.

8

What, then, is the truth about argument individuation? My own view is probably evident from the above: individuate arguments by inferences. Count inferences, and you’ve counted arguments. In other words, every inference determines an argument, in the strict sense. Individuating arguments in this way would not only squelch the counterexamples that dog Copi and Beardsley, but also be more in keeping with what constitutes an argument. The essence of an argument, after all, is neither premises nor conclusion, for considered independently of an

inference, both are mere propositions (or sentences, or statements, or beliefs, depending on your theory of argument). It's an inference that makes a proposition a premise, that makes a proposition a conclusion, and thus that makes a batch of propositions an argument – and an argument as defined by both Copi and Beardsley: premises related to conclusion in a certain way. I'm thus lead to individuate arguments by inferences on the basis of three considerations (one not yet mentioned):

- (a) the elimination of the counterexamples that plague Copi and Beardsley,
- (b) reflection of the nature of argument, and, in truth,
- (c) a dearth of plausible alternatives.

Strictly speaking, arguments should be individuated in a fine-grained way, by inferences.

9

But I've repeatedly used the phrase "strictly speaking" in the above, and since The Netherlands is hardly a land known for its strictness – even now we're not five minutes walking distance from the ladies in the window – some people may wonder what I have in mind with this qualifying phrase. Well, what I have in mind is that if Copi and Beardsley were doing philosophy and writing journal articles, they would deserve even more scorn than I, with my big hands, and my brethren here in the audience, with their even bigger hands, could heap upon them. They should have been more attentive, more careful, more thorough than they were – and, honesty requires me to say, at least as far as thoroughness is concerned, than I've been here. **[xxv]**

But, of course – and this is where the "strictly speaking" comes in – they weren't even attempting to do rigorous philosophy or write a journal article. They were each in the middle of the very first chapter of their excellent logic texts, and were trying to help students, at the very beginning of their study of good reasoning, to get a feel for the nature of argument without bogging them down from the start with confusing and unnecessary subtleties. Their job – and this is decidedly practical, even if not pragma – was to inculcate concepts, principles, rules, techniques, strategies, abilities, and attitudes, which is a daunting enough task without simultanelously trying to please a very different crowd, that of punctilious philosophers filled with grief, grievances, and grudges that passeth understanding, and ready to pounce on their fellow philosophers with the only true joy that they find in life. Pardon may not be the word for all, though there is

much to recommend in Shakespeare's remark to the contrary, but certainly something more than mercy is called for in the case of Copi and Beardsley. Justice, rather, demands that the charges be dismissed.

If that isn't clear on pragmatic grounds, on the grounds that their views on individuation are misconstrued if taken as pieces of theoretical philosophy, a further defense is available in the fact that there's an extended but very common sense of the term 'argument' in which we aren't so demanding, so nit-picking, so "strict sense"-oriented, a sense in which don't and aren't even tempted to individuate arguments by inferences. There is a sense of the term, for instance, and one frequently employed in everyday life, in which we do individuate arguments by conclusions - I'm speaking of Copi here, of course, but I'll get to Beardsley in a minute. In this sense - and it's one of several related senses - we say things like "the argument of the passage is that...", where we fill in the dots with a number of different independent reasons offered in support of a single conclusion: The argument of the passage is that John won't be able to make his mortgage payments this month, since his financial over-extension has caught up with him, and he's just suffered several major business set-backs as well. We may recognize all the while that the passage actually contains several independent arguments, in the strict sense of the term, that all share the same conclusion; we may recognize, in other words, that the situation is really like [C], [E], [N], [O], or [P] above. Still, that doesn't stop us, for we know that it's perfectly fine and pragmatically preferable to consider such structures single arguments. No harm is done by individuating arguments this way, by conclusion, and efficient communication and naturalness are gained. It may be loose talk to speak so, to consider [E] or [N] as a single argument, but much of our talk about arguments is loose talk, but innocuous enough for all that.

But if Copi can be vindicated, at least to some extent, by such considerations, so can the even more nefarious Beardsley. The same general points come to the rescue: we speak even more loosely, but not incorrectly, in saying such things as: The argument of the passage (or chapter, or book, or whatever) is that the population of third-world countries is increasing, and so is their demand for consumer goods; we can therefore expect ever-increasing pressures on the environment, and so should immediately take steps to ensure that pollution levels remain within reasonable limits. We may realize that a summarized passage or an argument diagram actually contains numerous, numerous arguments, in the strict sense of the term - the situation may be like [H], or even more complicated - but we also realize that no harm is done by, and there are advantages to, taking the

passage or diagram to contain a single argument, at least as long as there is one interconnected inferential structure that points to – to use Beardsley’s terminology – “a final conclusion or final conclusions.” If my point here isn’t clear in the abstract, think, to cite just one example, of how pedantic and cumbersome it would be to consider a long proof in predicate logic as a series of arguments, say, twenty or thirty, all told. Much better would be to think of it as simply a proof, or a deductively valid argument, with a final conclusion.

And speaking of final conclusions: May you buy the argument – note for the last time the singular – of this paper.

NOTES

[i] Irving Copi and Carl Cohen, *Introduction to Logic*, 8th edition, Macmillan Publishing Company, New York, New York (1990), p. 6.

[ii] Monroe Beardsley, *Thinking Straight*, 4th Edition, Prentice-Hall Publishing Company, Engelwood Cliffs, NJ (1975), p. 12.

[iii] When pressed, though, I couldn’t locate the passage in question or even remember which book of Walton’s it was in. This problem has since been partly remedied, however. At my request, Walton kindly told me that *Argument Structure: A Pragmatic Theory*, University of Toronto Press, Toronto (1996), contains his latest and most complete discussion of individuation. Unfortunately, I didn’t find this out until after this paper was completed. In addition, when this paper was presented at the University of Amsterdam, James Freeman pointed out to me that he has a chapter on argument individuation in “a book sufficiently obscure to ensure that no one knows that it exists.” Although I still haven’t read Freeman’s paper, I’ll certainly take it, Walton’s work, and other discussions I might have missed into account in future work on individuation.

[iv] Copi, *op. cit.*, p. 19. Copi is quoting Leo D. Marks, “Time to Start on High-Speed National Rail,” *The New York Times*, October 15, 1988.

[v] Copi, *op. cit.*, pp. 19-20.

[vi] Copi, *op. cit.*, p. 21. Copi is quoting Blanchard Hiatt, *University of Michigan Research News*, vol. 30, nos. 8-9, August-September 1979, p. 5.

[vii] Copi, *op. cit.*, p. 20.

[viii] Copi says that “the two statements (3) and (4) must work together to support the claim that desert locations are good sites for telescopes.” By the same token, it could be said that the three statements, (2), (3), and (4), must ultimately work together to support the claim that desert mountaintops which is what the conclusion, statement (1), is about – are good sites for telescopes. Copi, *op. cit.*, p.

21.

[ix] Beardsley, op. cit., p. 16.

[x] Beardsley, op, cit., p. 16.

[xi] Beardsley, op, cit., p. 16

[xii] Beardsley, op. cit., p. 17.

[xiii] Beardsley, op. cit., p. 18

[xiv] Beardsley, op. cit., p. 18.

[xv] Beardsley, op. cit., p. 18

[xvi] Beardsley, op. cit., p. 19.

[xvii] Monroe Beardsley, *Practical Logic*, Prentice-Hall, Inc., Englewood Cliffs, NJ (1950).

[xviii] I also think of Max Black, *Critical Thinking*, Prentice-Hall, Inc., Englewood Cliffs, NJ (1946), and Susan Stebbing, *Thinking to Some Purpose*, Pelican Books, Harmondsworth, Middlesex, England (1938), in this context. Neither of these books, however, is as comprehensive, clear, thorough, or practically-oriented as Beardsley's. Nor are any other pre-1950 books.

[xix] Beardsley, *Practical Logic*, op. cit., p. 12.

[xx] Beardsley, *Practical Logic*, op. cit., pp. 12-13.

[xxi] Beardsley, *Practical Logic*, op. cit., p. 19.

[xxii] Beardsley, *Practical Logic*, op. cit., p. 19.

[xxiii] A close look at Beardsley's definition of an argument, which is quoted above in section I, shows that he allows an argument to have two or more conclusions. An equally close look at Copi's definition, which is also quoted in section I, shows that he doesn't allow that.

[xxiv] Beardsley, *Practical Logic*, op. cit., p. 26.

[xxv] This paper just scratches the surface as far as argument identity and individuation are concerned. I address the matter at greater length in a companion piece, "Argument Identity," in preparation.

Phenomenological Argumentative Structure



1. Introduction[i]

What is the proper representation of phenomenological argumentative structure? By ‘phenomenological argumentative structure’ I mean the logical structure that an argument is perceived to have by mature reasoners – yet ones who are untrained in logic. Except for a few remarks, this paper will not be concerned with whether this informal ability to identify or match argumentative structure is an important reasoning skill; rather, it will be primarily concerned with *judging* or attempting to measure this skill. Instruments that have questions designed to do this include major standardized tests for graduate school admission, e.g., the United States-Canadian Law School Admission Test (LSAT), the Graduate Record Examinations (GRE), and the Graduate Management Admission Test (GMAT). Writers and reviewers of such tests need an appropriate foundation for developing such questions – they need a proper representation of phenomenological argumentative structure – for legitimacy, and because these tests affect people’s lives.

A further motivation is cost. A single question on these tests probably averages about \$2,000 to develop, so it is not a trivial matter when a test item is miscast and fails psychometric statistical review. Even given this, however, it may be that an attempt to represent phenomenological argumentative structure through (probably expensive) empirical studies would not be advisable. The results could be bewildering and not generalizable (one study found that the diagrammatic aids examinees drew when taking like tests tended to be quite idiosyncratic – Cox & Brna 1995). Instead, the approach that this paper will take will be mainly philosophical rather than empirical.

It would certainly appear that the informal or nontechnical ability to identify or match argumentative structure is fundamental to reasoning well. With only one putatively clear kind of exception, the validity (for deduction), or more broadly, cogency (for both deduction and nondeduction), of an argument is entirely (for deduction) or largely (for nondeduction) a function of its logical structure or form (cf., e.g., Sainsbury 1991: Ch. 1; also Walton 1995: Ch. 5 for a distinction of 25 nondeductive argument structures or “schemes”). The same applies to the

invalidity or lack of cogency of an argument. The only arguments that supposedly constitute an exception are those that proceed through conceptual analysis, that is, those that are termed 'materially' valid or invalid; a classic example is 'this is red all over, so it is not blue all over' (e.g., Read 1994). So apart from such arguments, and apart from conversational and rhetorical matters and matters related to the actual truth values of premises and conclusions, to perceive the logical structure of an argument is to perceive that in virtue of which the argument is good or bad (deduction) or is to perceive much of what makes the argument good or bad (nondeduction). Naturally, then, a principal way of assessing the cogency of a given argument is to match its structure with that of an argument whose cogency is known or obvious. In the case of showing lack of cogency, this tactic is called 'refutation by logical analogy'. (Some of the presuppositions of these remarks will be defended in §3.)

2. Question Format

Typical questions on the standardized tests mentioned that ask the examinee to identify or match structure consist of a short argumentative passage, a question stem on the order of either

(I) The argument's method of reasoning is

or

(M) The pattern of [flawed] reasoning in the argument above is most similar to that in which one of the following [arguments]? and five answer choices. Since all answer choices must be cast in ordinary nontechnical prose, questions of type (I) generally concern only the grosser features of an argument's structure. Questions of type (M), however, can pertain to much more subtle features (since the examinee is not asked to explicitly identify them), and it is this type that will constitute our focus.

Notice that (M) questions create a somewhat artificial setting that usefully restricts the task in a number of ways. That the text in the passage (and normally in each of the answer choices) is supposed to constitute an argument is settled, although clearly in ordinary discourse "it is not always easy" to determine whether this is the case (Baum 1981: 91). Moreover, whether or not the argumentative structure is supposed to lack cogency is normally given in the question stem by whether or not a term such as 'flawed' appears in the stem. This can make a great difference in the argumentative structure that people perceive. Example (1), with 'flawed' appearing in the question

Example (1)

John is an excellent member of the team.

All the members of the team are fathers.

Therefore, John is an excellent father.

Which of the following exhibit the same [flawed] logical structure as that exhibited in the argument above?

I. This is a fake diamond. All diamonds are hard. Therefore, this is hard.

II. This is a red apple. All apples are fruits. Therefore, this is a red fruit.

III. This is a big flea. All fleas are pests. Therefore, this is a big pest.

(A) II only

(B)* III only

(C) I and II only

(D) II and III only

I, II, and III**[ii]**

stem and (B) as the credited response, performed on the LSAT at pretest**[iii]** in a statistically acceptable, albeit marginal, fashion.

Havoc ensued, however, when, with the same credited response, ‘flawed’ was taken out. The reason seems plain: In the first case pretest examinees naturally took the rather informal**[iv]** fallacy of distributing an attributive adjective (“excellent”, “big”) across two different noun phrases as part of the argumentative structure. In the second case, with ‘flawed’ out, many pretest examinees interpreted the structure more formally and saw the passage, II, and III as exhibiting the same underlying “logical” (as opposed to ‘illogical’?) structure; so they picked option (D). Hence in general, insofar as examinees can depend on the fallaciousness of the passage’s argument being noted in the question, the matter of whether to interpret the argument charitably basically becomes irrelevant.

These factors direct and limit the interpretative task for examinees. Variations on such factors include leaving out the phrase ‘pattern of’ (or an equivalent) for arguments in which formal structure is not prominent or those in which conceptual connections are prominent; using a term such as ‘questionable’ instead of ‘flawed’ for suspicious, but not clearly fallacious, arguments; and specifying the number of flaws (e.g., ‘Which one of the following exhibits both of the logical flaws exhibited in the argument above?’). But the wording of the question stem is not the only kind of constraint that defines the interpretative

task; the other major constraint lies in how the passage argument and (especially) the correct answer choice are constructed. Other than that, obviously, they must be constructed to accurately reflect the stem's wording (and vice versa), I think that this constraint principally amounts to the injunction that the arguments normally not be substantially enthymematic. Arguments that were substantially enthymematic could be too subject to variance in the perception or analysis of their structure to be fair and defensible material. Moreover, measurement of the ability to match structure could be confounded by the additional task of dealing with unstated premises or conclusions.

It might be wondered whether such constraints create a setting that is so artificial that the ordinary nontechnical ability of mature reasoners to identify or match argumentative structure is not really being measured. It seems, however, that these constraints, common to standardized tests, that function to direct and limit the interpretative task for the examinee, are probably just harmless *context surrogates*. For it is an argument's context and background information specific to its presentation that generally decides such matters as whether the discourse is supposed to constitute an argument or whether to apply a principle of charity and take an ostensibly fallacious argument as a cogent enthymeme (assuming that it has not had an "undeserved persuasive power on an audience" - Adler 1994: 276). Standardized tests that are not unduly long generally could not provide realistic surrounding context for arguments and still be reliable, since a test's reliability is an asymptotic function of the number of questions it has (assuming they are of equal quality) (e.g., Gulliksen 1987: Ch. 8). In addition, if a large amount of text were provided as surrounding context, the skills measured would be less definite insofar as the examinee would have more opportunity to apply unintended skills. An indication that context surrogates are harmless is a high correlation between performance on the test and the performance that the test is used to predict. On the LSAT, questions of type (I) and (M) appear in "Logical Reasoning" sections, which have a (very high) correlation of .483 with first-year law school grades (Roussos & Norton, in press: 2). This means that performance on these sections accounts for almost half of the variance in first-year grades, with the remainder being accounted for by all other factors including, e.g., students' first-year learning as well as personal problems or misfortunes. Hence, some, such as the noted psychometrician W.J. van der Linden (1998: personal correspondence), think that a substantially higher correlation may be a practical impossibility.

3. Formal Structure

My thesis here is that if the passage and answer choices in a question can be formally analyzed at all, the formal analysis that is the proper representation of phenomenological argumentative structure is normally that which *departs least* from what actually appears in these arguments, but with a special consideration given to elements that figure in the arguments' purported validity or (more broadly) cogency. This seems correct for at least two reasons. First, almost any departure from actual text is *prima facie* questionable (cf., e.g., Sainsbury 1991: Ch. 6). A common departure is taking ordinary language universal or existential quantifications that are not in conditional or conjunctive form as if they were in these forms since that is how they are translated in first-order predicate logic. Of course the alternative that is closer to the actual text insofar as it expresses the surface logical structure is that of Aristotelian or syllogistic logic; and this alternative is preferable so long as it adequately expresses purported validity or cogency. So for example, the proper representation of the phenomenological structure of 'Some people are fools' is 'Some P's are F's', not ' $\exists x (Px \ \& \ Fx)$ '. In a question of type (M) that was recently pretested on the LSAT and that failed statistically, the major premise in the passage was "children would be proud of themselves if their teachers were proud of them." This was supposed to be matched in the credited response with "any biography that flattered its subject would be liked by that person". Possibly, the difference between the two forms that these sentences exhibit, among other things, contributed to the lack of success of the question.

A second reason for understanding the proper representation of phenomenological argumentative structure generally to be that which departs least from the actual text is that this approach is logically *inclusive*. It respects and attempts to take into account all of the text that could reasonably be taken into account in light of the various established logics – syllogistic, propositional, first and higher order predicate logics; tense, modal, deontic, epistemic, relevance, and probabilistic logics; logic with generalized quantifiers; logic of indexicals; etc. – within the discipline of logic. A pragmatic side benefit is that an examinee who happened to be trained in logic could legitimately appeal to any of these logics in answering or later challenging a test question. However, since an examinee need not have any training in logic, it would be inappropriate to *de facto* require the examinee to have mastery of and endorse some particular logic or formal analysis by, for instance, insisting on a formal analysis that incorporates certain putative logical constants to the exclusion of others. This makes it critical

that the formal analysis employed by test writers and reviewers be inclusive and close to the actual text.

For any argument, there is a strong temptation to proceed as if standard predicate logic can adequately or exhaustively represent its structure or form, probably because this logic is firmly established and very familiar. But standard predicate logic does not incorporate quantification over properties (as does a second or higher order logic). Nor does it incorporate generalized quantifiers (e.g., 'the', 'few', 'most') or modal (e.g., 'necessarily', 'can'), tense (e.g., 'in the future', 'now'), deontic (e.g., 'should', 'permissible'), epistemic (e.g., 'knows', 'guesses'), or probability operators (e.g., 'likely', 'there is a chance that') – all of which are quite reasonably regarded as logical constants. And so on. Hence, standard predicate logic, with its limited supply of logical constants ('all', 'not', 'if... then', etc., interpreted in the classical narrow way), can yield representations of structure that depart dramatically from actual text.

The appropriate recognition of the power and appeal of firstorder predicate logic, as well as syllogistic and propositional logic, seems to be to give these logics priority over less well-established logics in the formal representation of phenomenological argumentative structure. Certainly, 'deviant' logics on the order of manyvalued and Intuitionistic logics fall under the latter category. They have a substantial history now of attracting few advocates; so if even logicians are generally repulsed, it is hard to see how such logics could shed light on how ordinary mature reasoners perceive argumentative structure. Furthermore, first-order predicate logic has shown itself to be remarkably adaptable and extendable – from Russell's Theory of Descriptions and Davidson's proposal about adverbial modification (involving quantification over events) to an extension such as quantified modal logic[v].

In formally representing phenomenological argumentative structure it would be too simplistic to follow any such principle as Haack's (1978: 24-25):

. . . the optimal formal representation [is] the one which reveals the least structure consistently with supplying a formal argument which is valid in the system if the informal argument is judged extra-systematically valid. This is Quine's *maxim of shallow analysis* . . . "where it doesn't itch, don't scratch."

Compare Luebke (1995: 40): When can we say that two such arguments in ordinary language have the same argument structure? Must they be identical in respect of every one of their logical elements? The answer to this last question

seems clearly no, for some of the logical elements of an argument function to advance the conclusion of the argument and others do not.

One problem with this kind of view is that it does not cover *fallacious* arguments; so there at least would have to be amendment in terms of ‘invalidity in the system’, ‘judged extra-systematically invalid’, and ‘purporting to advance the conclusion’. A more serious problem is indicated in how Haack is a little misleading with respect to Quine’s view. Quine’s “*maxim of shallow analysis*” actually says “*expose no more logical structure than seems useful for the deduction or other inquiry at hand*” (1960: 160). The inquiry at hand here is the proper representation of the logical structure that an argument is perceived to have by mature yet untrained (in logic) reasoners. Of course we (logicians) can distinguish between, on the one hand, the reasoning structure in an argument – how the “logical elements” function in purporting to establish the conclusion – and on the other hand, such features as surface logical structure and the structure of the argument’s terms. But there does not appear to be any acceptable way of requiring untrained reasoners to take only the former into account.

Surely, question stems of type (M) do not suffice; and if these don’t, nothing will (for instance, the question stem in Example (1) is worse). After all, although these questions explicitly ask the examinee to focus on the ‘pattern of reasoning’, they do not say anything to the effect that to determine this pattern one should ignore term structure and go logically deep when and to the extent necessary. They cannot do this since these concepts are technical or relative to a specific system of logic. Consider:

Example (2) (2/94 LSAT)

Government official: Clearly, censorship exists if we, as citizens, are not allowed to communicate what we are ready to communicate at our own expense or if other citizens are not permitted access to our communications at their own expense. Public unwillingness to provide funds for certain kinds of scientific, scholarly, or artistic activities cannot, therefore, be described as censorship.

The flawed reasoning in the government official’s argument is most parallel to that in which one of the following?

(A) All actions that cause unnecessary harm to others are unjust; so if a just action causes harm to others, that action must be necessary.

(B) Since there is more to good manners than simply using polite forms of

address, it is not possible to say on first meeting a person whether or not that person has good manners.

(C) Acrophobia, usually defined as a morbid fear of heights, can also mean a morbid fear of sharp objects. Since both fears have the same name, they undoubtedly have the same origin.

(D)* There is no doubt that a deed is heroic if the doer risks his or her own life to benefit another person. Thus an action is not heroic if the only thing it endangers is the reputation of the doer.

(E) Perception of beauty in an object is determined by past and present influences on the mind of the beholder. Thus no object can be called beautiful, since not everyone will see beauty in it.

The credited response, (D), is a fairly straightforward instance of one variety, viz., 'if r then h, therefore if not r then not h', of the formal fallacy of confusing necessary and sufficient conditions. The argument in the passage may also be said to exhibit this particular fallacy, but notice that the term corresponding to 'r' is propositionally disjunctive only in the passage and that the passage's conclusion is a categorical statement, not a conditional as in (D). (The negation of 'r' is also clearer in (D)'s conclusion than it is in the passage – but this has more to do with the reasoning structure.) My point is, such differences must be taken into account in the writing and review of matching structure test questions. Phenomenologically, the flawed reasoning in the passage of Example (2) is not exactly parallel to that in (D) because of such differences. It might seem to be exactly parallel if one puts undue emphasis on the word 'flawed' in the question stem; in fact, the words 'reasoning' and 'parallel' are equally (un)emphasized there. Also, one might be fooled by the preceding propositional representation of the fallacy. But the kind of structural differences in question constitute a matter of degree, and they can *accumulate* to the point where the test item becomes dubious or indefensible. For instance, suppose that the passage in Example (2) consisted entirely of categorical statements. It is at least questionable whether the syllogistic error (all R's are H's, therefore all non-R's are non-H's) is the same as the propositional error.

To take another kind of example, suppose the passage and a noncredited response were a Modus Ponens and a Modus Tollens, respectively, the terms of which were all atomic statements (plus some negation). Suppose also that the credited response was a Modus Ponens, but its terms were all *really* complex compound statements. Would such a test item be defensible on the grounds that

only in the passage and credited response are the patterns of reasoning the 'same', even though any Modus Ponens (Modus Tollens) can be turned into a Modus Tollens (Modus Ponens) simply by the application of contraposition to the major premise? The test item would at least be problematic.

In Example (2) I think that (A) is, among the noncredited options, the one that is closest to being correct. But it is not correct. And the same reason yields both of these judgments, viz., that (A), where at least the categorical statement is translated as a conditional (or vice versa), is a contrapositive inference, which of course is valid. The actual structural differences between the passage and (D) are relatively insignificant when one considers that the question stem asks one to pick the option with the most parallel flawed reasoning – so the focus is on reasoning structure – and that (A) is formally valid (and is not informally fallacious either), whereas the passage and (D) are formally invalid.

The principle that is emerging is this: In the construction and defense of questions of type (M), when a question stem emphasizes reasoning structure by the use of a phrase such as 'pattern of reasoning' or 'parallel reasoning', more weight can legitimately be assigned to reasoning structure than to surface logical structure and the structure of the argument's terms. Yet these latter must still be taken into account in determining overall (phenomenological) argumentative structure. In this way we adopt the principle that Haack rejects, namely, the proper or "best formal representation will be the one that exhibits the most structure" (1978: 24); it involves at least the argument's logical constants (broadly construed) and the logically significant pattern of occurrence of these logical constants, individual constants, variables, and predicate terms. Such a fine-grained notion of structure means that passage/credited response pairs in good matching structure test questions generally will not consist of arguments with *identical* structures. Accordingly, question stems should be cast in terms of reasoning or reasoning patterns that are *most similar* or *most parallel* to one another, like (M) and as in Example (2), rather than in terms of identity, as in Example (1). The weaker terminology also has the advantage of hedging one's bets against unnoticed structural differences.

Differences in term structure can themselves signal differences in reasoning structure, so we ignore the former to our peril. Luecke (1995: 40) says:

(a) if p then q, p, therefore q

(b) if (r and s) then (t or u), r and s and y and z, therefore t or u or v or w

These two arguments do not have exactly the same logical elements, but the pattern of reasoning that establishes the conclusion is the same in each case – *modus ponens*. Both arguments argue for their conclusion in the same way. So the argument structures, as opposed to the term structures, are the same. In fact, (b) does not exhibit Modus Ponens since in (b)’s conclusion the consequent (t or u) of the conditional that constitutes the major premise is not affirmed; rather, the much weaker “t or u or v or w” is affirmed. For (b) to instantiate Modus Ponens, its conclusion would have to read ‘therefore t or u, therefore [by twice applying the rule of inference of Addition] ((t or u) or v) or w’ – but then, the overall pattern of reasoning is not simply Modus Ponens. Even aside from this, it is questionable whether (a) and (b) exhibit the same pattern of reasoning because the rule of inference of Simplification must be applied (twice) to (b)’s minor premise in order for it to be clearly the case that the antecedent (r and s) is affirmed. (Technically, this discussion is rendered somewhat indeterminate by the fact that in (b) the minor premise and conclusion are not even well-formed formulas.)

It will prove useful to examine the following case discussed by Massey (1995: 161):

Example 3

If something has been created by God, then everything has been created by God.
Everything has been created by God.

Something has been created by God.

Massey says of this argument that it “instantiates. . . *affirmation of the consequent*” yet it “is valid.” The reference to God in the argument is not essential; alternatively, the argument could be cast ‘if something is physical, then everything is physical’ (which, indeed, is one way of expressing a part of Bishop Berkeley’s philosophy), etc. Massey uses this case to try to help establish what he calls “the asymmetry thesis” (1975: 66):

To show that an argument is *valid* it *suffices* to paraphrase it into a demonstrably valid argument form of some (extant) logical system; to show that an argument is *invalid* it is *necessary* to show that it cannot be paraphrased into a valid argument form of *any* logical system, actual or possible. I think Massey is wrong on all counts.

Example (3) would be regarded as a valid argument in standard predicate logic. As expressed in that system, the conclusion follows from the minor premise since $\forall x \exists y (x = y)$ ('everything exists') is a theorem; and although the major premise is not used in drawing the conclusion, this does not matter formally since the system is monotonic (i.e., "if you start with a deductively valid argument, then, no matter what you *add* to the premises, you will end up with a deductively valid argument" – Sainsbury 1991: 11). This last point itself indicates a problem with Massey's account. If it is not the case that the conclusion is being drawn *through* affirming the consequent of the conditional (major) premise, in what sense could Example (3) 'instantiate' the 'so-called formal fallacy' (1995: 160) of affirming the consequent? (The fallacy is 'so-called' for Massey since it is clear that the necessary condition he proposes for showing that an argument is invalid could never be satisfied.) If the machinery of standard predicate logic were all that we had at our disposal, we could still say that Example (3), understood as valid, commits a gross informal fallacy of irrelevance (of its major premise) (or we could say instead that the argument actually consists just of the minor premise and the conclusion). And in relevance logic, this fallacy is treated as a *formal* fallacy (e.g., Haack 1978: 199).

In a particularly plausible version of free logic, $\forall x \exists y (x = y)$ is not a theorem; the logic does not require that every domain of interpretation be nonempty. This is plausible because it is hard to see the fact that there is something rather than nothing as a truth of logic (cf. Sainsbury 1991: 205-10). Standard predicate logic's requirement that every domain be nonempty seems to be merely a simplifying assumption that is innocuous for most purposes. But then this falsifies the sufficient condition, proposed by Massey, for showing that an argument is valid; "paraphrased" in a respectable system of (free) logic (if not also in relevance logic) Example (3) is invalid, although it is valid as paraphrased in standard predicate logic. Also falsified is the necessary condition for showing invalidity, since this is more or less just the contrapositive of the validity sufficient condition.

The strongest principle that Massey is entitled to, one that is true as well, is relativized to a system of logic:

An argument is valid (invalid) in *a system of logic* S if and only if there is some (no) valid argument form in S that the argument instantiates.

This is perfectly adequate to handle all the stock cases; for example, in propositional logic we would not want to say that a case of Modus Ponens is

invalid merely on the grounds that it also instantiates the invalid form 'r, p, therefore q'. Moreover, the asymmetry this indicates between showing validity and invalidity seems offset by the opposite asymmetry that it is possible to show that an argument is invalid, but not that it is valid, simply by considering the actual truth values of its premises and conclusion – if it has true premises and a false conclusion, the argument is invalid. So contrary to Massey, it is not true that “our ability to prove invalidity is markedly more circumscribed than our ability to prove validity” (1995: 164). What is true is, as Govier (1995: 175), puts it, “*formal analysis presupposes nonformal judgment as to the appropriacy of a paraphrase and the correctness of the logical system to which the argument is referred.*”

As expressed in propositional logic, Example (3) is a clear case of the invalid form of affirming the consequent. So what is the proper representation of Example (3)'s phenomenological argumentative structure? I think that for cases like Example (3) “*nonformal judgment*” must say that the matter is seriously indeterminate. We cannot merely analyze the argument propositionally because there is logical structure (repeated from the major premise) in the minor premise and in the conclusion, and it functions in purporting to establish the conclusion. But as expressed in one respectable system of logic that takes account of this structure, the argument is valid (although informally fallacious); in at least one other respectable system it is invalid. A variation on Example (3) that is in some ways more interesting is ‘if Lyra is a female sibling then she is a sister, Lyra is a sister, therefore she is a female sibling’. This argument is *materially* valid by virtue of the analytic truth that a sister (in the relevant sense) just is a female sibling, yet as expressed in propositional logic the argument is invalid. (One might want to say that the conditional here is somehow ‘really’ a biconditional; but notice that the same might be said of Example (3) and the ‘physicalist’ variation that I initially gave of it. However, in testing using short fixed texts, as in much communication such as legal contracts, the focus must be on what is actually said and not on anything like divining author meaning. Cf. Adler 1994: 275-76.) So to avoid confusion or *de facto* requiring examinees to endorse a particular system of logic, it seems that no such seriously indeterminate argument should appear in a question of type (I) or (M) on an exam like the LSAT. Simply not identifying the reasoning as ‘flawed’ could very well engender a statistically dreadful performance, as with Example (1).

The other moral to draw from this consideration of Example (3) has to do with the

undeniable fact that in ordinary life we routinely evaluate arguments as invalid or fallacious. If Massey were right, many, if not all, of these judgments would be illegitimate. But he is not right, and this is especially telling since he presents perhaps the strongest theoretical case for the kind of view in question. The positive alternative that is particularly appropriate for the study of phenomenological argumentative structure is a kind of “transcendental argument for arguments having a certain kind of structure: this is the structure arguments need to have in order for us to assess them in the ways in which we do” (Parsons 1996: 174). Needless to say, this helps to legitimate questions on an exam like the LSAT that ask test takers to match *flawed* patterns of reasoning.

4. *Informal Structure*

I think that, phenomenologically, the informal logical structure of an argument can include any of the argument’s general elements that figure in the purported cogency of (that function in purporting to advance the conclusion in) any pattern of reasoning. The proper representation of a given argument’s phenomenological argumentative structure will include these elements whether or not the given argument exhibits the pattern of reasoning in question. This point regarding informal structure corresponds to the point before regarding formal structure that such features as surface logical structure and the structure of the argument’s terms need to be taken into account. But also as before, more weight can legitimately be assigned to the general elements that actually figure in the purported cogency of the given argument.

This approach has more substance to it than might be evident.

In the first place, it rules out purely syntactical features, such as the location of the argument’s conclusion, as immaterial: these do not figure in the purported cogency of any pattern of reasoning.

Secondly, it coheres well with the established tradition in informal logic that the cogency of a nondeductive argument is largely a matter of its form. Salmon, for instance, indicates that a nondeductive argument is cogent if “the argument has a correct form, and. . .the premises of the argument embody all available relevant evidence”; so for example, the “correct” form of the “argument from authority” is ‘x is a reliable authority concerning p, x asserts p, therefore p’ (1973: 91; cf. Walton 1995: Ch. 5). Here, as is typical of informal structure, general elements that are not topic neutral (the concepts of a reliable authority and of asserting) are treated as logical constants. But this is hardly radical; it is a move that is routinely made even in *formal* (e.g., tense and deontic) logic.

This is a fundamental point that appears to be insufficiently appreciated by those who, like Lambert & Ulrich (1980: Ch. 1, sec. 3; cf. Massey 1995: 159-60), hold that informal fallacies cannot be structurally defined. Their ostensibly 'formalist' view involves the claim that validity precludes fallaciousness, which is about as (im)plausible as its corollary, viz., that nondeductiveness precludes cogency (for more argument against the view in question, see, e.g., Johnson 1989; Govier 1995). In any case, notice that a consequence of the present approach seems to be that the fact that an argument purports to proceed through conceptual analysis (as with materially valid arguments) should be counted as an (informal) structural feature.

Regardless of the theoretical debate about the extent to which informal fallacies can, or should (Berg 1987; Brinton 1995), be structurally defined, there generally seems to be little difficulty in attributing and relying on such structure in practice – at least on major standardized tests for graduate school admission. Consider:

Example (4) (6/93 LSAT)

Genevieve: Increasing costs have led commercial airlines to cut back on airplane maintenance. Also, reductions in public spending have led to air traffic control centers being underfunded and understaffed. For these and other reasons it is becoming quite unsafe to fly, and so one should avoid doing it.

Harold: Your reasoning may be sound, but I can hardly accept your conclusion when you yourself have recently been flying on commercial airlines even more than before. Which one of the following relies on a questionable technique most similar to that used in Harold's reply to Genevieve?

- (A) David says that the new film is not very good, but he has not seen it himself, so I don't accept his opinion.
- (B) A long time ago Maria showed me a great way to cook lamb, but for medical reasons she no longer eats red meat, so I'll cook something else for dinner tonight.
- (C) Susan has been trying to persuade me to go rock climbing with her, claiming that it's quite safe, but last week she fell and broke her collarbone, so I don't believe her.
- (D)* Pat has shown me research that proves that eating raw green vegetables is very beneficial and that one should eat them daily, but I don't believe it, since she hardly ever eats raw green vegetables.
- (E) Gabriel has all the qualifications we have specified for the job and has much relevant work experience, but I don't believe we should hire him, because when he worked in a similar position before his performance was mediocre.

Here I'd say that the appropriate representation of the informal fallacy is 's does not heed s's own credible advice a, therefore a is unacceptable'. This is appropriate in that it is cast at the right level of specificity and generality so that it applies to both the passage and the credited response – here, (D) – yet does not apply to any noncredited response. If it were more specific, it might not do the former; if it were more general, it might not do the latter. There is fairly good indirect evidence that examinees perceive such fallacies in the manner indicated, and so, that such patterns belong to the proper representation of phenomenological argumentative structure. For example, on the LSAT for the period June 1991 to June 1997, pretest questions of type (M) with a term such as 'flawed' included in the stem were statistically rejected at a rate of 10.7%, which is not particularly high considering that pretest statistical rejection rates for the other question subtypes in Logical Reasoning sections ranged from 2.1% to 12.3% (source: Law School Admission Council statistical databases; a total of 3312 Logical Reasoning questions were pretested).

A third indication of the substance of the present approach is that it *helps* to explain the lack of success of some intended measures of the ability of mature yet untrained (in logic) reasoners to match argumentative structure, such as:

Example (5)

Professor X: The predictions made by professional economists concerning future economic conditions have not proved to be accurate and reliable, so despite the many contributions they make in keeping track of the economy, professional economists have only a limited understanding of the complicated causal structures that determine economic outcomes. For if one is unable to make accurate and reliable predictions about some subject area, one's understanding of the forces involved is probably quite limited.

Which one of the following arguments uses a pattern of reasoning that is most similar to that used in Professor X's argument?

(A) Economists have a limited understanding of the causes of economic events, so their long-term predictions are not reliable. As a result, their main contributions probably consist in keeping track of how the economy is doing.

(B)* Some students do not find advanced mathematics easy to master, so they will not pursue the study of mathematics beyond its more elementary phases. For if a person does not find a subject easy to learn, he or she will probably not pursue the study of it.

(C) Predictions made by astrologers only seem to be reliable, so astrologers do not really know what is going to happen in the future, despite the fact that many people take their predictions quite seriously. For the predictions astrologers make probably seem to be reliable only because they are very general and vague.

(D) Astrologers make predictions about future events in which people have a keen interest, so they are likely to be believed by many people, despite the fact that their predictions are not very reliable. For it is easy to fool people when their emotions become involved.

(E) Astronomers make accurate predictions about phenomena such as eclipses and the appearance of comets, so they must understand the causes of such phenomena. For if one understands the causes of a range of phenomena, one will probably be able to make accurate predictions about those phenomena.

The psychometric statistical characteristics of this question, pretested on the LSAT, were very bad. A relatively straightforward indication of this is what is called a 'fifths' table (source: Law School Admission Council statistical databases):

The 3110 examinees who took this question are divided into five groups ('fifths') based on their performance on the two scored Logical Reasoning sections (which comprise a total of about 50 questions). The columns in the fifths table show how many of each fifth chose the various answer options (e.g., in the bottom fifth, 80 examinees chose (A)). As judged by this fifths table, the question would be a fairly good one if (E) were the credited response - but (B) is. For instance, of the examinees in the top fifth, a full 50% chose (E), whereas only 19% chose (B). Both the passage and (B) exhibit the simplified nondeductive reasoning structure 'if p then probably q, p, therefore q'. Option (E)'s major (conditional) premise has the same structure at this level of analysis as that in the passage and (B), yet with respect to this premise (E) exhibits an informal variant of the fallacy of affirming the consequent. However, in conditionalized form (in its major premise) option (E) embodies the reasoning pattern 's understands the causes of x, therefore probably s can make true predictions about x'. Surely, this is a common reasoning pattern. The only other argument in the test item that has the general elements of this pattern is the passage, where the conditional is a probabilistic contrapositive of the conditional in (E). (The corresponding conditional of the first sentence in option (A) differs in that it is not general, not probabilistic, and is the fallacious reversal of the conditional in the passage.) Again the point to make is that embedded structure that has nothing to do with a given argument's cogency

(here, the passage and (E)) nevertheless must be taken into account in determining that argument's phenomenological argumentative structure.

NOTES

- i.** An earlier version of this paper was presented at Law School Admission Council. The paper has benefited from discussion on this occasion and with Kenneth Olson, and from written comments by Deborah Kerman and Stephen Luebke.
- ii.** All test items reproduced in this paper are copyright © Law School Admission Council.
- iii.** Before any test item is used in a scored section of an LSAT exam, it appears in an unscored section of a previous LSAT; this is known as 'pretesting'. The purpose is to determine the item's psychometric statistical characteristics so that if these are acceptable, the item can later be incorporated according to specification into a section that will be scored. The statistics used are primarily those of a three-parameter Item Response Theory model. The three parameters are measures, roughly speaking, of (a) how well the item discriminates among examinees of differing ability, (b) how difficult the item is, and (c) the probability of examinees of very low ability answering the item correctly, perhaps by guessing (e.g., Lord 1980). Also used are statistics of Classical theory, for example, how well performance on the item correlates with performance on the test section as a whole (e.g., Lord & Novick 1968).
- iv.** Recently, this fallacy has apparently been adequately formalized in first-order predicate logic for some types of attributive adjectives. See Ben-Yami 1996.
- v.** Indeed, there has even been work on "a unified account of a fairly wide range of logical systems," including "classical logic, relevant logics such as Anderson and Belnap's R, close relatives of fuzzy logic, some modal logics and many weaker, but still interesting, nonstandard systems." Slaney 1990: 74.

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ISSA Proceedings 1998 - Duties Beyond Borders? Appeals To Moral Necessity In Statecraft



Speaking at the dedication of the U.S. Holocaust Memorial Museum a few years ago, Nobel Laureate Elie Wiesel called for the Clinton Administration to take action to stop the carnage in Bosnia. "Something, anything, must be done," he implored (*Time*, May 3, 1993: 48). Shocked by atrocities, the horror of systematic rape, and waves of panic-stricken refugees fleeing in the wake of "ethnic cleansing," many other people joined Wiesel in urging the nations of the world to intervene for humanitarian reasons. "All humanity should be outraged," asserted Thomas Buergenthal, former president of the Inter-American Court of Human Rights and a survivor of Auschwitz (cited in Lillich 1993: 574). "We cannot just let things go on like this," insisted former British Prime Minister Margaret Thatcher. "It is evil" (*Time*, April 26, 1993: 35).

Whether prompted by genocide in the former Yugoslavia or political mass murder in such places as Cambodia or Rwanda, the issue of what should be done about human rights violations in other countries highlights an old debate over whether ethical considerations ought to influence foreign policy. Do political leaders have a moral obligation to alleviate human suffering no matter where it is located? Must they protect foreign nationals even at the expense of their countrymen? If so, should it be done through a quick rescue operation? Or should it include an effort to eradicate the underlying cause of the suffering? These questions have received renewed attention with the establishment of a United Nations' War Crimes Tribunal in The Hague, charged with conducting the first international war crimes trials since those undertaken in Nuremberg and Tokyo at the end of Second World War.

The purpose of this essay is to analyze appeals to moral necessity in persuasive dialogue on foreign policy issues. I begin by differentiating between two types of

appeal: one based on duty; the other, on right. After comparing the deontological assumptions of duty-based appeals with the consequentialism of rights-based appeals, I discuss how metaphors are sometimes used in the latter to conflate legal right with moral obligation. Next, using a series of speeches that attempted to justify the 1989 intervention by the United States into Panama, I illustrate the rhetorical strategy employed by statesmen who mask legal permissibility as moral obligation. Finally, I conclude with a discussion of the problems inherent in moral appeals that blur the distinction between the permissible and the obligatory.

1. Arguments From Moral Necessity

Throughout the ages, political leaders have justified the use of military force against neighboring states with a form of argument that stresses how foreign policy is driven by unavoidable necessities. In general, these necessities are portrayed in strategic terms; they are actions that supposedly must be carried out to advance national security interests regardless of whether they contravene prevailing ethical standards (Raymond 1995).

Recently a different conception of necessity has entered into debates about the use of military force. Rather than defending the resort to arms on the grounds of strategic necessity, it is often justified nowadays as a “categorical moral imperative” to stop a brutal government from violating the human rights of its citizens (Reisman 1973: 168; Schermers 1991: 592; Rodley 1992: 35). As one advocate of this view has put it, the military defeat of rulers who initiate massacres “is morally necessary” (Walzer 1977: 105). It is an absolute duty, one that holds at all times and in all places, and regardless of whether it advances the strategic interests of the intervening state.

Allowing the use of coercion by one state to modify the authority structure in another state would significantly transform world affairs. Ever since the Peace of Westphalia ended the Thirty Years’ War in 1648, the twin principles of sovereignty and nonintervention have underpinned international relations. The only widely accepted exception to the prohibition against interfering in the domestic affairs of other nation-states is military intervention to liberate one’s own nationals when they are being held hostage, such as the 1976 Israeli mission to rescue its citizens from a hijacked airplane in Entebbe, Uganda. What is noteworthy about recent appeals to moral necessity is they do not focus on whether those who are suffering are the intervening state’s own citizens. Sovereignty, according to those who hold this view, is no longer sacrosanct

(Scheffer 1996: 37). As self-proclaimed global citizens in an interdependent world, they do not recognize human rights issues as being a purely domestic matter. An example of this attitude can be seen in a letter written to the editor of the *New York Times* (October 4, 1968, p. 46) by Arthur Leff, a professor at Yale Law School. Reacting to wrenching scenes of malnutrition during the Nigerian Civil War he demanded: "Forget all the blather about international law, sovereignty and self-determination, all that abstract garbage," he demanded. "Babies [in Biafra] are starving to death." As expressed in Article 7 of the Universal Declaration of Human Responsibilities, proposed by the InterAction Council of twenty-four former heads of state from five different continents, "Every person is infinitely precious and must be protected unconditionally."

2. Duty-Based Versus Rights-Based Appeals to Moral Necessity in Foreign Policy

In contrast to appeals to moral necessity that are grounded in deontological assumptions about categorical duty, a second type of appeal stresses the bad consequences that occur when legal rights are not observed (Eisner 1993: 224-225; Neff 1993: 185; Plant 1993: 110). The warrant licensing the claim that it is permissible to intervene with armed force in order to stop egregious violations of human rights rests on the backing of four propositions. The first proposition asserts that human rights are an international entitlement (D'Amato 1995: 148). Article 55(c) of the United Nations Charter requires member states to promote "universal respect for, and observance of, human rights" Over the past fifty years, the UN has developed a detailed list of inherent, inalienable rights of all human beings. The most significant legal formulation of these rights is in the so-called International Bill of Human Rights, the informal name given to The Universal Declaration of Human Rights (which was passed by a vote of the UN General Assembly in 1948), the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social, and Cultural Rights (which were both opened for signature in 1966 and entered into force a decade later). The legal rules governing these rights are regarded as *jus cogens* - peremptory norms from which no derogation is permitted.

The second proposition maintains that governments committing grave violations of human rights forfeit their legitimacy. Although Article 2 (7) of the UN Charter prevents member states from interfering in the "domestic matters" of one another, the Charter's legal protection does not extend to genocide, torture, and other horrific acts shocking to the human conscience. Governments involved in egregious human rights abuses betray the most basic obligations they have to

their citizens. By not providing citizens with security they fail recognized standards of civilization and lose their political legitimacy. The domestic jurisdiction of illegitimate governments is not protected by international law (Tesón 1988: 15; Ellerman 1993: 348). Efforts by foreign states to defend the innocent against the actions of illegitimate governments is legally permissible (Luban 1980: 164).

The third proposition declares that the international community has a legal responsibility to stop serious human rights violations. According to the International Court of Justice, there are some obligations that a state has “towards the international community as a whole” and all members of that community “have a legal interest in their protection” (*Case Concerning the Barcelona Traction, Light and Power Company, Ltd.* [Belgium v. Spain], I.C.J. Reports, 1970, para. 33). Advocates of humanitarian intervention maintain that the entitlement for protection against genocide, slavery, and the like give rise to legal obligations *erga omnes*. Any member of the international community has legal standing to call for a state to observe these obligations and to impose sanctions if wrongful acts continue. As the publicist Emeriche de Vattel put it, “any foreign power may rightfully give assistance to an oppressed people who asked for aid” (cited in Schweigman 1993: 95).

Finally, the fourth proposition submits that punitive sanctions by members of the international community against illegitimate governments are legally permissible if they meet certain performance criteria. Among the criteria typically mentioned are:

1. a serious violation of human rights;
2. the lack of any other alternative to stopping the violation;
3. international endorsement of the military intervention;
4. multilateral conduct of the intervention;
5. use of the minimum level of force needed to stop the violation; and
6. a limited duration for the intervention (Benjamin 1992-1993).

3. The Use of Metaphors in Rights-Based Appeals

What is problematic about rights-based appeals in statecraft the shift from the assertion that certain actions are legally permissible to the contention that they are morally obligatory. To make this shift the rhetor relies upon metaphorical reasoning. Although metaphors often are thought of as poetic devices used to enliven dull prose, they also shape the way we conceive of complex phenomena.

“The essence of a metaphor is understanding and experiencing one kind of thing in terms of another” (Lakoff & Johnson 1980: 5). Unlike analogies which compare things from the same domain of experience (e.g., “A war with Iraq will result in another Vietnam”), Vosniadou & Ortony (1989: 7) point out that metaphors involve “across-domain” rather than “within-domain” comparisons (e.g., “War is like a disease”). By crossing categorical boundaries when depicting the unfamiliar (Kittay 1987: 19), metaphors highlight certain aspects of a phenomenon under investigation while concealing or misrepresenting other aspects.

The shift from a legal right to an inescapable moral duty to intervene against abhorrent acts of violence is attempted by using various hydraulic and organic metaphors. Like a raging flood or a wild fire, international humanitarian norms are said to be spreading across the political landscape, overwhelming everything in their path. National leaders have no choice but to accommodate these powerful forces which make the triumph of human rights a “*genuine historical inevitability*” (Brzezinski 1996: 166, emphasis in original).

Metaphors provide cognitive shortcuts that allow one to go beyond the information that is given (Shimko 1994: 662). As a rhetorical strategy, rights-based appeals to moral necessity begin by establishing that the horrible consequences of not stopping human rights abuses makes military intervention legally permissible. By playing upon metaphors of inescapable physical forces, the argument then shifts from the permissible to the obligatory. Intervention is required, not because of a categorical duty derived from features of the act that make it right independent of its consequences, but due to the need for national leaders to get in step the inexorable march of moral history.

To illustrate the problematic nature of this type of appeal to moral necessity, let us turn to the case of the 1989 United States intervention into Panama.

4. The Rhetorical Strategy of Rights-Based Appeals

At 1:00 A.M. on December 20, 1989, 22,000 U.S. troops supported by F-117A stealth attack aircraft invaded Panama in what President George Bush called Operation Just Cause. The purpose of the operation was to capture General Manuel Antonio Noriega, a military dictator who had gained control over Panama six years earlier. During his time in power, Noriega repressed opposition movements, manipulated elections, and ordered the murder of dissident political leaders. His ruthless behavior was overlooked by political leaders in the United States because he had worked for the Central Intelligence Agency and assisted Washington in its fight against communism in Central America. Between 1986

and 1987, however, Noriega's human rights abuses and his involvement in narcotics trafficking and money laundering with the Colombian Medellín drug cartel were brought to light by a series of Congressional inquiries, reports published in the *New York Times*, and independent criminal investigations presented to grand juries in Miami and Tampa, Florida. On April 8, 1988, President Ronald Reagan issued Executive Order No. 12635, which imposed economic sanctions on Panama because Noriega's actions now were seen as an "extraordinary threat to the nation security, foreign policy, and economy of the United States."

Although the sanctions damaged the Panamanian economy, they did not weaken Noriega's grip on political power. As a result, Reagan's successor, George Bush, began providing covert support for Noriega's political opponents. But the support was equally ineffective. Neither the May 1989 elections in Panama nor an attempted coup five months later ended the dictatorship.

On Friday, December 15, Noriega announced that henceforth he would serve as Panama's "maximum leader" with enhanced power to crush domestic dissent. The next day, following the murder of an unarmed U.S. marine lieutenant by members of the Panama Defense Forces, the wounding of another American serviceman, and arrest and brutal interrogation of a U.S. naval officer and his wife, Bush decided to invade. When justifying his decision in an address to the nation on December 20, Bush asserted that "General Noriega's reckless threats and attacks on Americans in Panama created an imminent danger to the 35,000 American citizens in Panama." As president of the United States, he continued, "I have no higher obligation than to safeguard the lives of American citizens." While Bush's address to the American public was couched in the traditional language of protecting citizens abroad, speeches delivered by Ambassador Thomas R. Pickering to the United Nations Security Council on December 20, 1989 and by Luigi R. Einaudi to the Organization of American States (OAS) on December 22, 1989 extended the justification to include the moral necessity of protecting foreign nationals.^[i]

Following the line of reasoning voiced by the president, Pickering began his speech by citing the "inherent right of self-defense under international law . . . in response to armed attacks by forces under the direction of Manuel Noriega." But after underscoring the importance of safeguarding American lives, he introduced another rationale for the intervention: Noriega and his "ruthless cabal repeatedly obstructed the will of the Panamanian people." Panamanians, he insisted, "have a

right to be free." Referring to Noriega and his minions as "thugs" and "monsters," Pickering noted that the "whole world" has "denounced the violation of human rights" in Panama. For the United States, the issue was not merely guarding national security interests; the "sovereign will of the Panamanian people is what we are here defending." Pointing to a series of conditions that made the intervention legally permissible, he concluded by stressing that the invasion occurred "only after exhausting the full range of available alternatives." Moreover, it was undertaken "in a manner designed to minimize casualties and damage," and designed with the goal of withdrawing "as quickly as possible."

With the intervention framed by Pickering in terms of a legally permissible response by the United States to a moral outrage, Ambassador Einaudi proceeded to explain why Washington faced a moral necessity that obliged it to act. He began his explanation by suggesting that "There are times in the life of men and of nations when history seems to take charge of events as to sweep all obstacles from its chosen path." At such times, he continued, "history appears to incarnate some great and irresistible principle." The world community was "once again living in historic times, a time when a great principle . . . [was] spreading across the world like wild fire." The principle articulated "the revolutionary idea that the people, not governments, are sovereign." Drawing a parallel to the fall of Erich Honecker in the German Democratic Republic, Gustav Husak in Czechoslovakia, and Todor Zhivkov in Bulgaria, he claimed it is a principle that has "acquired the force of historical necessity." If the OAS invoked the nonintervention rule in the case of Noriega, it would "find itself cast on the side of the dictators and the tyrants of this world," oppressors "en route to extinction."

Would this organization, he asked, be willing to forfeit the "moral authority which it enjoys throughout this hemisphere by challenging the just verdict that history had decreed upon Manuel Noriega?" Expressing the maxim that the only language that dictators understand is force, he asserted "You cannot reason with a dictator, and you cannot, alas, ask him to relinquish peacefully that which he has obtained through bloody and unspeakable means."

The "United States was forced to a path not of our choosing, but a path dictated by our national rights and responsibilities." Our action has been "welcomed overwhelmingly by the people of Panama," who along with others in the Western Hemisphere were "sick of stolen elections, sick of military dictatorships, sick of narco-strongmen, and sick of the likes of Manuel Noriega." By supporting the United States, Einaudi proclaimed the OAS would "put itself on the right side of

history.”

5. Conclusion

Throughout the history of the modern state system, appeals to moral necessity have been used by many political leaders to justify military interventions. Great Britain, France, and Russia employed such appeals at various times during the nineteenth century. More recently, they were used by India when intervening in East Pakistan (1971), by Vietnam when moving against the Khmer Rouge (1978), and by Tanzania when removing Idi Amin from Uganda (1979). Moral appeals can be an effective tactic in foreign policy argumentation, swinging the weight of presumption in favor of military intervention. Of the various factors that influence the strength of an argument, many are concerned with emotions and highly-placed values. Not only do they evoke a visceral reaction in the hearer, they address the hearer’s desire for certainty by being structurally simple and unambiguous (Sillince & Minors 1991).

As the U.S. intervention into Panama in 1989 suggests, appeals to moral necessity can also mask foreign policies driven by considerations of expediency rather than by a genuine sense of moral duty. Whereas Bush explained the intervention to his domestic constituency in the traditional vocabulary of power politics, Pickering and Einaudi defended it to external audiences in moral terms. Pickering presented the course of action as legally permissible given the human rights violations committed by Noriega. Einaudi then described it as necessitated given the relentless march of humanitarian law over the centuries. What began as a plea to the UN Security Council regarding the legality of the intervention evolved before the Organization of American States into a moral imperative.

In retrospect, the moral necessity conjured up by the Bush administration was an instrumental means for promoting realpolitik ends. The welfare of Panamanians under Noriega was not a motive for intervention independent of the effect that the intervention was thought to have in advancing U.S. security interests. The use of legal rights-based appeals to moral necessity in this case illuminates a larger issue in contemporary international relations. With the end of the Cold War, numerous calls have been issued for members of the international community to intercede where outrageous conduct shocks the conscience of humankind. But not everyone who heeds these calls will do so for noble motives. Some states will use the mask of moral necessity to hide egoistic security interests. While there may be a legal right to intervene in cases of egregious human rights violations, international law does not spell out a duty to intervene. Although the use of force

may be permissible, it is also permissible to forego the use of force. Indeed, there may be times when it is morally right to forego military intervention even when it is legally permissible. As Molière reminds us, we are responsible not only for our actions, but also our inactions.

NOTES

i. All quotations from President Bush are from the Weekly Compilation of Presidential Documents, December 25, 1989. All quotations from Ambassadors Pickering and Einaudi are from Panama: A Just Cause. United States Department of State, Bureau of Public Affairs, Current Policy No. 120.

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ISSA Proceedings 2014 ~ A Formal Perspective On The Pragma-Dialectical Discussion Model

Abstract: For the development of computation tools to support the pragma-dialectical analysis of argumentative texts, a formal approximation of the pragma-dialectical ideal model of a critical discussion theory is required. A basic dialogue game for critical discussion is developed as the foundation for such formal approximation. To this basic dialogue game, which has a restricted complexity, the more complex features of critical discussion can gradually be added.

Keywords: computerisation, critical discussion, dialogue game, formalisation, pragma-dialectics.

1. Formalisation in preparation of computerisation

Formalisation is one of the important developments in the field of argumentation theory emphasised by van Eemeren in his keynote address at the 8th ISSA conference. My contribution to the ISSA conference deals with the formalisation of one theory of argumentation: the pragma-dialectical theory (van Eemeren & Grootendorst, 2004; van Eemeren et al., 2014, pp. 517-613). This study is intended to contribute to a more encompassing research project, the overall goal of which is to create a formal foundation for a computational application of the pragma-dialectical theory.

The computational application of argumentation theory in general has developed into several directions, as is evident from, e.g., the overviews by Rahwan and Simari (2009) and van Eemeren et al. (2014, pp. 615-675). Instead of trying to formalise and computerise every possible application of the pragma-dialectical theory at once, the current aim is to create a foundation for computational tools to support the analysis of argumentative discourse. Although fully computerised pragma-dialectical analysis will presumably not be feasible for quite some time, smaller digital tools to assist human analysts in their analytical tasks can be realised on a shorter term.

One area in which such a smaller tool can offer support is the composition of the analytic overview. As the outcome of a (standard) pragma-dialectical analysis of

an argumentative text, the analytic overview “brings together systematically everything that is relevant to the resolution of a difference of opinion” (van Eemeren & Grootendorst, 2004, p. 118).**[i]** In order to arrive at an analytic overview, the analyst applies a two-step method. First, the ideal model of a critical discussion (van Eemeren & Grootendorst, 2004, pp. 42-68) is used as a heuristic to determine which parts of the original text are (or can be considered as) argumentatively relevant. By applying four analytical transformation, the original text is reconstructed in terms of a critical discussion (van Eemeren et al., 1993, pp. 61-62). In the second step, an analytic overview is abstracted from this reconstruction. The composition of the analytic overview is fully determined by the content of the reconstruction in terms of a critical discussion. Based on the discussion moves made by discussants in the analytical reconstruction, the following is determined as part of the analytic overview: the nature of the difference of opinion, the distribution of discussion roles, the starting points, the arguments, the structure of the argumentation and the argument schemes (van Eemeren & Grootendorst, 2004, pp. 118-119).

To develop a computational tool to support analysts in composing an analytic overview on the basis of a reconstruction of the original text in terms of a critical discussion, it is necessary to have a computational representation of the relations between the possible variations in the constitutive parts of the ideal model and those of the analytic overview. Preliminary to these relations, computational representations of the ideal model of a critical discussion, and of the analytic overview themselves are necessary. In the current paper a preparatory step towards the computational representation of the ideal model of a critical discussion is made by formalising part of the ideal model.

2. A formal approximation of critical discussion

The formal perspective on the pragma-dialectical ideal model is developed as a dialogue game. This dialogue game can be considered a formal approximation of the ideal model of a critical discussion. As an ‘approximation’, the dialogue game is not intended to replace the original model in any way – a conclusion that might inadvertently be drawn if it would be called a ‘formalisation’ proper. Additionally, the term ‘approximation’ indicates that it is unlikely that all features of the original ideal model can be preserved entirely in the formal dialogue game.

When a discrepancy between the original model and its formal counterpart occurs, this may in some cases indicate a flaw or imprecision in the original. In

other cases it can be the result of the streamlining that is required to conform to the expressiveness of the formalism used. More often than not, a formalism is less expressive than a model expressed in natural language. One reason why this is so, is the requirement in formal models to explicitly and unambiguously define what is included, while excluding everything else. In this respect the formal approximation is stricter than the original ideal model.

The notion of a 'formal approximation' is analogous to that of an 'empirical approximation' of critical discussion introduced by van Eemeren and Houtlosser (2005). Empirical approximations are used in the extended pragma-dialectical theory (van Eemeren, 2010), where the focus is shifted from the idealised case of a critical discussion in the standard theory to studying the intricacies of argumentative discourse in everyday use. Unsurprisingly, interlocutors in ordinary discourse turn out not to behave exactly in accordance with an ideal model of communication. This does however not mean that they abandon all ideals entirely. For argumentative discourse, the ideal of reasonableness is a case in point.

To study the actual practice of argumentative discourse, the pragma-dialectical ideal model can be used as an analytic heuristic to make sense of the conventionalised communicative activities by seeing how they diverge from the ideal model. In this view, the ideal model is realised in terms of its empirical counterparts in ordinary communication. An actual argumentative exchange is then said to be an empirical approximation of the ideal model of a critical discussion.

Although it should be clear that an ideal model does not actually occur in communicative reality^[ii] – which is why actual argumentative discourse can merely be regarded *empirical* approximations – it may not be so clear why an ideal model could not be *formal*. Indeed, Krabbe and others (Krabbe & Walton, 2011, p. 246; Krabbe, 2012, p. 12; van Eemeren et al., 2014, p. 304) have observed that the pragma-dialectical ideal model can already be said to be formal in the sense of being procedurally regimented (*formal3* in Barth and Krabbe's taxonomy (1982, pp. 14-19; Krabbe, 1982)) and a priori or normative (*formal4*). The formal approximation of critical discussion developed as a dialogue game, is intended to also be formal in the sense of rigorously specifying the linguistically well-formed expressions and the way in which these can be combined and used in a discussion (*formal2*).

3. Restricting the complexity of the model

The formal approximation of critical discussion is not developed all at once. Instead, a basic dialogue game is developed to which more complex features of the original ideal model can be gradually introduced. This systematic approach has the practical advantage of decomposing a larger task, so that the smaller components can be developed at different times or by different people. A second, theoretic advantage is that the gradual introduction of complex features provide insight into the model itself because its features can be studied in isolation, without other aspects complicating matters.

The basic dialogue game is developed to fulfil the role of the simplified basis to which more complexity can later be added. To lower the complexity of the dialogue game, three restrictions are in place with respect to the original ideal model, which the dialogue game is a formal approximation of. First, only the dialectical dimension of critical discussion is taken into account, disregarding the realisation of discussion moves in the ideal model through speech acts (van Eemeren & Grootendorst, 1984) and the rhetorical dimension of strategic manoeuvring (van Eemeren, 2010). Second, the dialogue game offers players fewer choices and opportunities compared to the original model. This restriction is most evident in the exclusion of complex argumentation, only allowing an arguer to put forward one single argument for his standpoint. Third, only the argumentation stage of critical discussion is explicitly part of the dialogue game, while of the other three discussion stages a specific (uncomplicating) outcome is assumed.

For the confrontation stage, the assumption is that a single positive standpoint was put forward, which met with doubt. This restricts the dialogue game to single non-mixed differences of opinion about a single positive standpoint, excluding differences of opinion about multiple standpoints or where a negative or opposing standpoint is assumed. The main restriction resulting from the assumed outcome of the opening stage is that only a single argument may be put forward, which may only be challenged by doubt, not by contradiction. Since the concluding stage only comes after the argumentation stage, no assumptions have to be made about that stage. **[iii]** The overall result of the assumed outcomes of the confrontation and opening stages is that the basic dialogue game developed in the next section is a formal approximation of the dialectical dimension of the argumentation stage of non-complex, consistently non-mixed critical discussions about one positive

standpoint which is defended by appealing to a single justificatory reason.

4. A basic dialogue game for critical discussion

The dialogue game is introduced by means of five categories of rules. First, there are rules that determine the initial state of the game. Second, the moves that are available to the players are defined. Third, the effect of making moves on players' commitments is made clear. Fourth, the sequential rules determine in which order moves may be made, sanctioning the structure of the dialogue. Fifth, there are rules specifying how the game ends; both when and in whose favour. The rules of the dialogue game are based on the 15 'technical' rules of critical discussion (van Eemeren & Grootendorst, 2004, pp. 135-157). These rules should not be confused with the 'practical' code of conduct consisting of 10 commandments for reasonable discussants (van Eemeren & Grootendorst, 1992, pp. 208-209), which are based on the aforementioned 15 rules and are intended to be used as a rule of thumb in evaluating and conducting actual argumentative discussions. Due to the restrictions introduced in the preceding section, of the 15 rules, in particular rules 6-13 are relevant for the basic dialogue game.[iv]

In line with the ideal model, the basic dialogue game for critical discussion is played by two (teams of) players. The constitution of the players is left undetermined. In the ideal model the assumption is that the discussion parties are human interlocutors, but because the development of the dialogue game for critical discussion is intended to form a basis for pragma-dialectically oriented work in artificial settings, the nature of players of the game is left undefined. Eventually the dialogue game should be such that both human and artificial agents can play it.

How players internally represent the current and past states of the dialogue during the game and how they keep track of their own and the other player's commitments is not a concern for the rules of the dialogue game. In the case of human players the internal make-up is a matter for cognitive psychology (van Eemeren & Grootendorst, 1984, p. 6), in the case of artificial agents, for software engineering. For the basic dialogue game it is sufficient to assume there to be some way of modelling the players. The rules of the dialogue game will not refer to, nor take into account, the individual modelling or private belief sets of the players.

A further aspect of the make-up of players which is not addressed in the rules for

the dialogue game, is the matter of strategy. While playing the dialogue game, players have choices to make about their subsequent moves. Players can employ different strategies in playing the game to increase their chances of winning. Similar to the internal constitution of the players, their strategies are left undefined in the dialogue game rules. Rather, these strategies are taken to be part of the ('subjective' or 'internal') make-up (i.e. artificial modelling or psychological constitution) of the players.

The dialogue game rules assume there to be a formal language $\mathcal{L}$ in which the propositions the game is about can be expressed. The nature of $\mathcal{L}$ is not the object of the current study. It is therefore at present sufficient to take $\mathcal{L}$ to consist of the sentences of propositional logic closed under the usual classical operators. All occurrences of ϕ or ψ in the rules refer to (atomic or molecular) propositions of $\mathcal{L}$.

A second (formal) system is required to represent the inferences appealed to by players in the dialogue game. Because the basic dialogue game is only intended as a simplified foundation, no assumptions are made about the particular reasoning system underpinning the inferences used in the game. The only requirement is that there is some external method of deciding the soundness of inferences. Although more elaborate systems (for example the pragma-dialectical account of argument schemes with critical questions (van Eemeren & Grootendorst, 1992; Garssen, 1997), or non-monotonic systems of defeasible reasoning (e.g., Pollock, 1987; Dung, 1995) can be introduced as part of the gradual addition of complexity to the dialogue game, for the moment classical propositional logic can be taken to provide the inference rules applied by players in the dialogue game. Any reference to $\phi \Rightarrow \psi$ can then be interpreted as an appeal to a rule of inference from propositional logic on the basis of which the acceptability of ϕ justifies the acceptability of ψ .

4.1 *Commencement rules*

The commencement rules determine the initial state of the game before the first move has been made. Because both the confrontation and the opening stages of critical discussion are not explicitly modelled, the assumed outcomes of these stages are reflected in the initial state. With respect to the confrontation stage, the result is that the basic dialogue game for critical discussion is played by two players to determine the tenability of a positive standpoint with respect to some proposition $\psi \in \mathcal{L}$.

Based on the assumed outcome of the opening stage, the two players are designated *Prot* and *Ant*, corresponding to the discussion roles of protagonist and antagonist in (the argumentation stage of) a critical discussion. *Prot* is defending a positive standpoint with respect to ψ , while *Ant* critically assesses the defence, having doubt regarding the acceptability of ψ . Another outcome of the opening stage is the agreement upon a set of material and procedural starting points. In the dialogue game the material starting points are represented by a static set *SP* (for Starting Points) of propositions both players accept. Because the players need at least one common starting point to engage in a fruitful discussion (van Eemeren & Grootendorst, 2004, p. 139), *SP* is assumed to be non-empty: $SP \neq \square$. [v] The procedural starting points are reflected in the following three assumptions: the players agree to play by the rules of the game; the players conform to a turn-based approach, where a player makes one of the moves defined in the next subsection after which the turn passes to the other player; the players have agreed upon an inferential system and a way to check the acceptability of instantiated inferences.

Finally, the purpose of the dialogue game is for the players to resolve their difference of opinion about ψ , where *Prot* will defend a positive standpoint with respect to ψ by providing argumentation supporting ψ and *Ant* critically tests ψ 's tenability by challenging the argumentation.

4.2 Move rules

Each turn one of the players makes one move. The moves made are of the form $\text{type}(\phi)$. The function the move fulfils in the context of the dialogue game is designated by *type*. The propositional content of the move is made up by either an (atomic or molecular) proposition $\phi \in \mathcal{L}$, or the application of an inference rule ($\Rightarrow$) on a pair of propositions $\phi, \psi \in \mathcal{L}$. Each unique instantiation of a move, i.e. the combination of a type and propositional content, can only be used as a move by a player once per game – in other words, a player may not repeat the exact same move he has already made before.

The basic dialogue game for critical discussion is asymmetrical with respect to the role the two players fulfil. Because of this, there are two separate sets of moves which are available to the two players of the game depending on their role. To defend his standpoint about ψ , *Prot* has the following moves available to him:

(M1) *argue*(ϕ): to present ϕ as an argument for ψ . (Note that $\phi \neq \psi$, to prevent

circular reasoning).

(M2) *identify*(ϕ): to initiate the intersubjective identification procedure, in order to check the mutual acceptability of ϕ , here taken to be decidable by checking whether $\phi \in SP$.

(M3) *test*($\phi \Rightarrow \psi$): to initiate the intersubjective testing procedure, in order to test the acceptability of the justificatory force of ϕ for ψ , assumed to be decidable through some external method, by determining whether $\phi \Rightarrow \psi$ is a sound instantiation of an inference rule.

(M4) *retract*(ϕ): to retract commitment to an argument, where $\phi \in CSProt$.

(M5) *conclusive_defence*(ψ): to claim victory after a successful defence of a positive standpoint with respect to ψ .

To critically test *Prot*'s argumentation, *Ant* can make use of the following moves:

(M6) *accept*(ϕ): to accept ϕ in defence of ψ .

(M7) *challenge*(ϕ): to cast doubt on the material premise ϕ of an earlier move *argue*(ϕ).

(M8) *challenge*($\phi \Rightarrow \psi$): to cast doubt on the justificatory force $\phi \Rightarrow \psi$ of an earlier move *argue*(ϕ).

(M9) *successful_attack*(ϕ): to claim the successful challenging of the acceptability of ϕ .

(M10) *successful_attack*($\phi \Rightarrow \psi$): to claim the successful challenging of the acceptability of $\phi \Rightarrow \psi$.

(M11) *conclusive_attack*(ψ): to claim victory after a successful criticism of *Prot*'s argumentative defence of ψ .

4.3 Commitment rules

As a result of making moves, players acquire (and retract) commitments. These commitments are called 'dialectical', referring to their dialectical function in a discussion, and are conceived of in line with Hamblin's (1970) conception. If a player is committed to a certain proposition, this means he should be prepared (or is even obliged) to defend the acceptability of the proposition if prompted to do so, in other words he assumes a potential burden of proof. **[vi]**

Both players are associated with an individual commitment store in which the propositions a player is committed to in the dialogue are kept track of. A player's commitment store is represented by a set of propositions, which is publicly readable (meaning that it is available for all players) and privately writeable

(meaning that a player can only directly update his own commitment store, not that of the other player). At the start of the game, the players' commitment stores are filled with some propositions. Based on the requirements at the start of the game, *Prot*'s commitment store contains the common starting points and the standpoint ψ , [vii] while *Ant*'s commitment store only contains the common starting points. It is important to note that the respective commitment stores may contain additional propositions than those mentioned here, so long as $\psi \notin CS_{Ant}$ – otherwise *Ant* would also be committed to the standpoint before starting the game, so that no difference of opinion would arise in the first place. Before any moves are made, the players' commitment stores are as follows:

$$(C1) CS_{Prot} = SP \cup \{\psi\}.$$

$$(C2) CS_{Ant} = SP.$$

As a result of moves during the game, these commitment stores can be updated. The performance of some moves results in the acquisition of new commitments, while other moves retract commitments. There are three moves in the basic dialogue game for critical discussion that result in an update of the player's commitment store (with the affected commitment store before the equals sign, and the resulting updated commitment store after it):

$$(C3) \text{ argue}(\varphi): CS_{Prot} = CS_{Prot} \cup \{\varphi, \varphi \Rightarrow \psi\}.$$

$$(C4) \text{ retract}(\varphi): CS_{Prot} = CS_{Prot} - \{\varphi, \varphi \Rightarrow \psi\}.$$

$$(C5) \text{ accept}(\varphi): CS_{Ant} = CS_{Ant} \cup \{\varphi, \varphi \Rightarrow \psi\}.$$

4.4 Sequential rules

The preceding two subsections presented respectively which moves there are in the basic dialogue game for critical discussion and what the effect is of making these moves in terms of the players' commitments. The sequential rules introduced in this subsection define when moves can be made. The dialogue game is always started by *Prot* making a move $\text{argue}(\varphi)$ to put forward φ in defence of the standpoint at issue, ψ . At which moments the other moves can legally be made is dependent on the state of the game at that moment. The relevant aspects of the state of the game in this respect are the move made by the other player in the preceding turn, and in some cases the content of the commitment stores of the players. This results in the following rules:

$$(S1) \text{ argue}(\varphi): \text{starting move, if } \psi \text{ is argued for, then } \varphi \neq \psi.$$

- (S2) *identify(ϕ)*: may follow *challenge(ϕ)*, where ϕ represents an argument's propositional content.
- (S3) *test($\phi \Rightarrow \psi$)*: may follow *challenge($\phi \Rightarrow \psi$)*, where $\phi \Rightarrow \psi$ represents an argument's justificatory force.
- (S4) *retract(ϕ)*: may follow *challenge(ϕ)*, *challenge($\phi \Rightarrow \psi$)*, *successful_attack(ϕ)*, or *successful_attack($\phi \Rightarrow \psi$)* **[viii]**.
- (S5) *conclusive_defence(ψ)*: follows *accept(ϕ)*.
- (S6) *accept(ϕ)*: may follow *identify(ϕ)* if $\phi \in SP$, *test($\phi \Rightarrow \psi$)* if $\phi \Rightarrow \psi$ is sound, or *argue(ϕ)*.
- (S7) *challenge(ϕ)*: may follow *argue(ϕ)*, or *test($\phi \Rightarrow \psi$)* if $\phi \Rightarrow \psi$ is sound.
- (S8) *challenge($\phi \Rightarrow \psi$)*: may follow *argue(ϕ)*, or *identify(ϕ)* if $\phi \in SP$.
- (S9) *successful_attack(ϕ)*: follows *identify(ϕ)* if $\phi \notin SP$.
- (S10) *successful_attack($\phi \Rightarrow \psi$)*: follows *test($\phi \Rightarrow \psi$)* if $\phi \Rightarrow \psi$ is not sound.
- (S11) *conclusive_attack(ψ)*: follows *retract(ϕ)*.

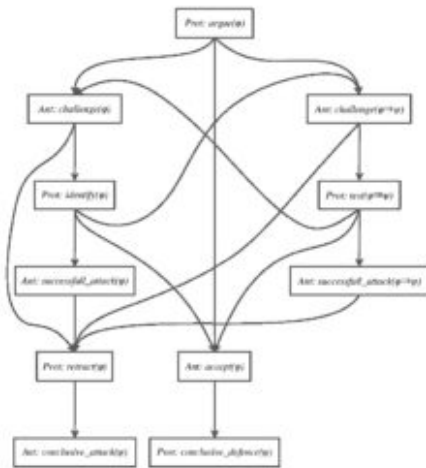


Figure 1: The sequential structure of the basic dialogue game.

Figure 1: The sequential structure of the basic dialogue game.

To clarify the sequential structure of the basic dialogue game, I present Figure 1 as a visualisation of the sanctioned sequences in terms of a tree. The nodes of the tree are the moves of the dialogue game (with the format [Player: type(propositional content)]) and the arrows indicate the possible transitions between moves (from one turn to the next). **[ix]** The node at the top of Figure 1 denotes the start of the game, i.e. the first move. The dialogue game terminates at one of the two nodes at the bottom of Figure 1. The route straight through the middle of the tree is the shortest route where Ant immediately accepts the

argument. In the left and right routes, the acceptability of, respectively, the propositional content and the justificatory force of the argument are challenged.

4.5 Termination rules

The concluding stage is not explicitly incorporated in the basic dialogue game for critical discussion. It is nevertheless clear that the winning or losing of the dialogue game can be based on the outcome discussants can obtain in the argumentation stage of the ideal model. The dialogue game terminates if one of the players performs the move *conclusive_attack*(ψ) or *conclusive_defence*(ψ). Once the game has stopped in this way, the winner is *Prot* if $\phi \in CS_{Ant}$, (corresponding to the case where the antagonist accepts ϕ as an argument in defence of ψ) and *Ant* otherwise. **[x]**

5. Conclusion

I began this paper by discussing the role the basic dialogue game for critical discussion plays in a more encompassing research project. The aim of this project is to lay a formal foundation for the development of digital tools to aid the pragma-dialectical analysis of argumentative discourse. To constrain the scope of the project, the current focus is on tools to computerise the abstraction of an analytic overview from a reconstruction of a text in terms of a critical discussion. In preparation of the development of such an analytical tool, a formal approximation of the ideal model of a critical discussion is necessary, together with the relation between this formal approximation and the elements of an analytic overview.

The formal approximation is started in this paper with a basic dialogue game for critical discussion. The game is defined in terms of rules for commencement, moves, commitments, sequences and termination. By following the rules of the basic dialogue game, two players can play a game by entering in a simple dialogue. One of the players presents an argument in defence of a standpoint that has not been mutually accepted. The other player can respond by challenging the propositional content or justificatory force of the argumentation, or by accepting it. A challenge can be parried by initiating the relevant intersubjective procedure to check the acceptability, or can be followed by a retraction of the argumentation. Depending on the outcomes of the intersubjective procedures and the acceptance or retraction of the argumentation, one of the two players wins the game.

Even though it is obvious from this simple characterisation that there is not much inherent value in the basic dialogue game as a playable game, it does however serve a purpose as a foundation for future work. This goal required the dialogue game to be relatively easy to develop and understand, so that formal approximations of more complex features of the ideal model can be modelled on the basis of this simplified dialogue game, and their effect be investigated systematically and in isolation.

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ISSA Proceedings 2014 ~ Story Credibility In Narrative Arguments

Abstract: Recent work on narrative-based arguments has insisted on the importance, for assessment, of construing a theory of story “credibility” or “believability”. The main tenet of most approaches is the idea that a credible story should resemble “reality”. However, “narrative realism” is a rather problematic concept. The paper proposes a more nuanced, multi-dimensional and explicitly meta-argumentative approach to the assessment of arguments involving narratives, that would not prejudge their argumentative form or function.

Keywords: argument assessment, narrative argument, narrative rationality, narrative realism.

1. Introduction

Narrative argumentation, narration in arguments or the inherent narrativity of arguing and debating, are, no doubt, trendy topics in the field of argumentation theory. We heard several papers on these issues in last year’s OSSA 10th Conference and here in ISSA 2014, we have two complete panels labelled “Narrative argument”. Of course, this implies a certain variety of approaches and some clarifications as to the referents and the scope of my own paper are required.

First of all, even if I take W. Fisher’s narrative paradigm of rationality (1989 [1987]) as a truly attractive philosophical stance, that could yield interesting insights regarding the cognitive basis of our reasoning, I claim some of its assumptions may turn our attention away from the particularities of real discourse. If we assume that:

regardless of genre, discourse will always tell a story and insofar as it invites an audience to believe it or act on it, the narrative paradigm and its attendant logic, narrative rationality, are available for interpretation and assessment (Fisher, 1989, p. xi) there would be nothing specific to arguments involving explicit narratives as obvious parts or as a manifest linguistic strategy. Again, Fisher

insists “When narration is taken as the master metaphor, it subsumes the others” (1989, p. 62). So my first clarification is that here I don’t mean to use “narrative” as a metaphor (however insightful) of what’s happening when we argue and listen to or interpret arguments; nor as the cognitive key (however revealing) to the widespread features of our species’ argumentative practices (as allegedly *Homo narrans*). I will focus, instead, on the straightforward recognition of a variety of argument types and argumentative discourses in which the particular linguistic features and genre-specific qualities of narration play a significant role.

2. Narrative arguments

There are a number of widely acknowledged argument types in which narratives may be involved in significant ways. Certain explicitly “narrative-based argument schemes” have been presented and discussed in recent literature (Walton, 2012; Govier & Ayers, 2012) and there is also interest in pure “narrative discourse” as a possible way of arguing for a thesis in the adequate pragmatic contexts (Plumer, 2011; Olmos, 2014).

Not trying at all to be exhaustive in any sense and just for the purposes of this paper, I will mention four broad categories of arguments for which an exploration of “narrative credibility” would be of interest.

i. First of all, as it comes to everybody’s mind, arguments presenting parallel, *digressive* stories (cf.: Cic. *De inv.* I 27), i.e. not directly related and causally and historically independent, be them fictive or not, to the circumstances referred to in the thesis, as reasons, nevertheless, for its acceptance (although not necessarily through an argument by analogy, cf. Olmos, 2014b). They would typically conform (and I refer here to Walton, Reed and Macagno’s 2008 catalogue): arguments from example (WRM 2008, p. 314), arguments from “analogy”, especially “practical reasoning from analogy” (*ibid.* pp. 315-316) or arguments from precedent (p. 344).

ii. In second place, arguments in which the data, or part of the data are presented in narrative form; i.e. arguments which involve narrative premises which have something to do with the particulars and circumstances referred to in the thesis (they are not *digressive* but they are not *core* narratives either “which contain just the case and the whole reason for a dispute”, *De inv.*, I.27). For example, practical inferences from consequences (p. 323), or from goal (p. 325), arguments from sacrifice (p. 322) and waste (p. 326), arguments from interaction of act and

person (p. 321), pragmatic inconsistencies (p. 336), arguments from memory (p. 346).

The argument types so far mentioned do not necessarily always represent what I would call a narrative argument – especially not when they just involve a one-step consequence supported or supportable by a simple warrant. I would restrict the concept of narrative argument to cases that explicitly involve a more complex, sequential chain or compound of events that should be assessed as a whole. In any case, the credibility of the narratives endorsed as reasons or parts of reasons in these two categories of arguments would be essential to their interpretation and assessment. But then, we may also think of:

iii. Arguments *about* narratives, i.e. about versions of events (these would be what I call *core* narratives, cf. Olmos, 2014), with usually partly narrative claims or conclusions (typically global assertions regarding narrative accounts of disputed facts: “what really happened is...”) supported by a variety of reasons (typically involving source reliability) when facts themselves are under discussion or are unknown to the audience. Such cases would typically involve arguments from position to know (p. 309) or arguments from witness testimony (p. 310).

These are usually *not* narrative-based arguments (the key reasons involved are not typically narrative, although they could be), but theories about story credibility may be part of their analysis, understanding and assessment as the critical questions presented by Walton Reed and Macagno (2008, p. 310) concerning “arguments from witness testimony” reveal:

CQ1: Is what the witness said internally consistent?

CQ2: Is what the witness said consistent with the known facts of the case (based on evidence apart from what the witness testified to)?

CQ3: Is what the witness said consistent with what other witnesses have (independently) testified to?

CQ4: Is there some kind of bias that can be attributed to the account given by the witness?

CQ5: How plausible is the statement A asserted by the witness?

iv. And finally, we have what we could call credible “pure narration”, that I have elsewhere treated as some sort of self-standing and self-referring “argument” (Olmos, 2014), and perhaps could be better understood in terms of assuming certain argumentative qualities –rhetorical and others– in a discourse that does

not explicitly present an argument. In such cases we could have a manifestly credible narration as a discursive way to *implicitly* support the veracity of an account. The story's veracity would be the (usually implicit or just suggested) conclusion and its manifest narrative plausibility, its only justificatory measure. We can imagine that a particular theory or a principle of story credibility could act as such conclusion's warrant, if challenged in subsequent interchange.

There exists, on the other hand, a rather extended impression that the way we go about assessing the credibility of the stories we hear is something extremely basic within our cognitive capacities. Thus, Fisher talks about our "inherent awareness of *narrative probability*" (1989, p. 5) or even our "natural capacity to recognize the coherence and fidelity of stories" (1989, p. 24). In fact, our everyday experience somewhat matches this confidence, but this doesn't mean that we cannot try to be more specific as to the way we assess such narrative *probabilitas*. In fact, there have been numerous attempts at that, and many of them from the ranks of the rhetoricians, concerned with argumentative issues and the specific problems posed by argumentative settings (Olmos, 2012).

3. *Criterial theories of story credibility*

As early as in Isocrates (4th c. BCE), we may find the well-known classical triad of the virtues required by a narrative discourse to be persuasive, i.e. rhetorically effective. Narration employed in persuasive processes and rhetorical settings should be clear (*safēs*), brief (*suntomon*), and convincing (*pithanon*). In the subsequent Latin tradition this "convincing" (*pithanon*) was alternatively translated for *probabilis*, *credibilis* or *verisimilis*. Fortunatianus (4th c. CE), in his *Artis rhetoricae* (II.20), supports the relevance of these three virtues by identifying the argumentative benefits expected from each one of them: "Brief, so that the audience may enjoy listening to us; clear, so that we be fully understood; verisimilar, so that our story serve as evidence" ("Brevis, ut libentius audiatur, manifesta, ut intellegatur, verisimilis, ut probetur"). According to Fortunatianus' formula, then, it is the third virtue what allows us to use narratives as supporting reasons for our claims. But how do we attain such verisimilitude that would result in the credibility or believability of our stories and, therefore, in their usefulness as assessable reasons? The main tenet of most of approaches to "story credibility" is the rough idea that a credible story should resemble "reality" or "what we know about reality". But usually this main rough idea is complemented and developed by identifying more concrete requirements. We will take a look at several of these

“criterial” theories of story credibility starting with some apparently simple distinctions and advancing towards a more complicated panorama.

There has been a long-standing tradition in locating criteria for “story credibility” in, at least, two distinct realms: one *intra-diegetic* (inside the story itself), the other *extra-diegetic*. This is very clear and straightforward in Gilbert Plumer’s characteristically *diadic* account of the novel’s *believability* (2011, pp. 1554-1555) which would be attained by means of its:

1. “internal coherence”: that events in the narrative be fully connected, and
2. “external coherence”: that they also “cohere with our widely shared assumptions about how human psychology and society [...] work”.

W. Fisher also presented, in principle, this kind of *diadic* approach to the evaluation of communicative discourse (which, in his view, is always narrative). However, while developing his criteria throughout his book, Fisher finally introduces certain ideas that point to somewhat different evaluative sources. Fisher calls “coherence” or “probability” what’s roughly Plumer’s “internal coherence”, and “fidelity” Plumer’s “external coherence”. Here is a summary scheme of what Fisher says about these two testing qualities of “human communication” in different parts of his book (1989: pp. 47; 75; 88; 175).

A.

PROBABILITY /COHERENCE: whether a story “hangs together”

A.1. Probability is assessed in three ways:

- by the story’s *argumentative* or *structural coherence* (i.e. its involving a “coherent plot”);
- by its *material coherence*, that is, by comparing and contrasting it to stories told in other discourses;
- and by *characterological coherence*.

A.2. These features (which Fisher calls formal) result in the narrative satisfying the demands of a *coherence theory of truth*. The idea is that the story be “free of contradictions”.

A.3. “Knowing something about the character of the speaker and his or her actual experience, one can judge whether his or her story ‘hangs together’ and ‘rings true’.” (p. 88).

B.

FIDELITY: truthfulness and reliability.

- B.1. Fisher calls features of fidelity *substantive* (vs. *formal*) features, which result in the narrative satisfying the demands of a *correspondence theory of truth*.
- B.2. Narrative *fidelity* concerns the soundness of its internal reasoning: Does the message accurately portrait the world we live in?
- B.3. Narrative *fidelity* also concerns the value of its values: Does it provide a reliable guide to our beliefs, attitudes, values and actions?

This more lengthily developed and in principle more sophisticated account is ultimately only apparently *diadic*. Considerations presented in A.1. about “material coherence” rely on a comparative approach between available stories (even, reading through the text, between available “competing” stories) which is not so much an *intra-diegetic* criterion and which may have to do with a wider assessment of the pragmatic circumstances and discursive background in which a story is uttered and interpreted –we’ll see more of that later, in other authors, but as a relevantly distinct criterion, with its own weigh.

More unexpected is probably the mention, in A.3., of the speaker’s known or attested character as supporting the story’s coherence when, for example, in Walton’s considerations on “arguments by testimony” it is exactly the other way around: the story’s apparent coherence would be part of the assessment of the testifier’s performance that would finally support the plausibility of an argument in which the assessable reason would be that there is a witness testifying for a certain claim. In any case, I suggest that this and other ethotic questions would require a better fit as they conform a criterion or a set of criteria that go beyond the story’s “coherence”.

In the *fidelity* side, we see again the somewhat unexpected (although fully consistent with Fisher’s avowed motivations) introduction of an ethical and value-based characterization of this requirement, which has to do with its “reliable” vs. its “truthful” quality. However, this very important aspect would demand, in my opinion, its own space as not immediately related to *prima facie believability* or, in any case, to a *correspondence theory of truth*. Of course the compliance of stories with values may be crucial for their usefulness in practical reasoning and so their assessment according to this criterion may be part of their acquiring the quality of “evidence” in certain contexts. But I still think it would be better to distinguish more neatly, at least in principle, between the two aspects of *fidelity* mentioned by Fisher. So Fisher’s account, apparently clear, schematic and diadic has finally proven rather pluralistic, which is not a bad thing, but just reminds us

that there are still many things which could be clarified in this domain.

I will mention now the old list of requirements given by the 15th c. humanist Rudolph Agricola (ca. 1479) for a “probable account” (*probabilis expositio*), which is *triadic*, not because I intend to classify theories about story credibility according to the number of criteria they propose, but because the third criterion he adds to roughly the two equivalents of the main ones we have already seen deserves, in my opinion, some consideration. According to Agricola, in a well-known passage of his *De inventione dialectica*,^[i] the kind of *probabilitas* we are after in accounting for facts is obtained by means of an exposition which would be:

- a. “rich in argumentative content (*argumentosa*): i.e. which accounts for enough aspects of the action related;
- b. “free from contradiction” (*per se consequens*): i.e. which presents an internal coherent structure;
- c. “consistent with how things are” (*consentanea rebus*): i.e. resembles what we know about the real world, complies with an external standard of comparison.

While b) and c) could be more or less equivalent to Plumer’s intra- and extra-diegetic criteria, criterion a) is, obviously, something different. It may have something to do with the “material coherence” mentioned by Fisher in the sense that the relative “degree of detail” (depth and richness) attained by a story cannot be an absolute measure, but will always be evaluated by comparison to other accounts (competing or not).

In any case, this kind of criterion, reconverted into a requirement for “coverage”, reappears in modern theories regarding the testing of stories in legal settings. We find something very similar in, for example, Pennington and Hastie (1992). These authors mention several factors that determine the acceptability of a story in juror’s decision- making:

- a. Coherence: which sums consistency (internal criterion) and plausibility (external criterion);
- b. Coverage: of the legal evidence presented;
- c. Uniqueness: that it is the only story available

The two most obvious principles (Plumer’s internal and external coherence) they group under the heading “coherence” and distinguish between an internal “consistency” requirement (freedom of contradictions) and an external

“plausibility” one. The second criterion (close to Agricola’s “richness in argumentative content”) refers not just to the particular “degree of detail” of the story but to its degree of detail relative to the data presented in trial as evidence, the idea being that the credible story should be capable of “covering”, that is of explaining and situating such evidence within a global, articulate account. This I find a nice way of spelling out the pragmatic circumstances regarding the kind of criterion demanded by Agricola with his “*expositio argumentosa*” for a particular argumentative practice (in this case, juror’s decision-making) and I imagine something similar should be done in different contexts.

Now, Pennington and Hastie’s criterion c), “uniqueness”, is also very interesting. It is rather akin to the “material coherence” mentioned by Fisher (although Fisher’s characterization would include both coverage and uniqueness in “material coherence”), as this author specifies that other stories told should be compared and contrasted with the one we are testing, in order to evaluate it. I would suggest, though that this criterion should be supplemented or qualified with an additional *independence* criterion that may bring in issues about multiple-source confirmation.

It is a common rule in law that, at least, two *independent* witnesses should coincide in telling roughly “the same story” for their “joint” testimony to constitute “evidence”. If there are contradictions between witnesses this circumstance goes against the plausibility of each of their accounts. However, the measure of the “degree of independence” of two, more or less coincident, witnesses relies precisely on their stories being at least “slightly different” so that they do not seem to have been dictated by a common source. If two people, who in principle should have seen things with their own eyes, from their own respective different positions, tell exactly the same story, mention the same details and qualify actions with the same vocabulary, anyone will suspect that their testimony has been unduly prearranged. So Pennington and Hastie’s uniqueness criterion should be supplemented or qualified with an *independence* criterion that may take account of such possibilities. We’ll finally mention Cicero’s “multiple criteria” approach as exposed in a well known paragraph of his *De inventione*:

The narrative will be plausible if it seems to embody characteristics which are accustomed to appear in real life; if the proper qualities of the characters are maintained, if reasons for their actions are plain, if there seems to have been

ability to do the deed, if it can be shown that the time was opportune, the space sufficient and the place suitable for the events about to be narrated; if the story fits in with the nature of the actors in it, the habits of the ordinary people and the beliefs of the audience. Verisimilitude can be secured by following these principles (De inv. I.29.)

This paragraph was commented by Marius Victorinus in the 4th c. CE (*Explanationum in rhetoricam M. Tullii Ciceronis*) emphasizing the opposition between the so-called “seven circumstances” (that account for the story’s “coverage” and “internal coherence”) and the “doxastic” standards that have to do, above all, with the “pragmatic” circumstances of discourse delivery (audience-related issues). According to Marius Victorinus (Halm, 1863, p. 207) Cicero’s criteria for the assessment of the plausibility of a *narratio* could be schematized thus, placing, on one side, the seven circumstances that must be duly accounted for by the narrative and, on the other, the three doxastic aspects mentioned by Cicero.

Seven circumstances	Opinion
Who (person)	Nature of the agents
What (fact)	
Why (cause)	Common habits and values
Where (place)	
When (time)	
How (mode)	Audience (arbiter's) opinion
How possibly (faculty)	

Seven circumstances – Opinion

This is probably an oversystematic interpretation of Cicero’s paragraph, but what counts for our purposes is that *De inventione* mentions among the extra-diegetic criteria for narrative assessment things like the “common habits and values of the ordinary people” (in line with Fisher) and also (in an explicit rhetorical mood) the need to take into account the “audience’s or arbiter’s previous opinion” in analysing the “credibility in context” of a story.

4. Argumentative assessment of story credibility

Now, all these proposals seem to be based on the collection and ordering of a list of different criteria that a story told in an argumentative discourse should fulfil in order to be credible and accepted as evidence of some sort. If we sum up and try to arrange what we have so far seen, starting from the most inner (intra-diegetic) to outer (extra-diegetic) criteria, we have a much more complicated framework

than the diadic theory we started with and which referred to roughly numbers 1 and 9 on our list, equivalents of which are mentioned by practically all authors:

1. Internal plot or structural coherence
2. Internal characteriological coherence (Fischer, Cicero)
3. Internal degree of detail: *expositio argumentosa*, covering the seven or more circumstances: i.e. a rich enough, dense enough account (Agricola, Cicero)
4. Arguer-related, “ethotic” assessment: story/storyteller coherence (Fisher)
5. Coverage of relevant extra-diegetic evidence (“material coherence”). Relative to argumentative practice involved (Pennington and Hastie).
6. Uniqueness, situation of the story regarding other “competing” discourses (Pennington and Hastie).
7. Independence regarding other competing discourses (relative contribution to a collective reconstruction of plausibility based on multiple-source confirmation) (Olmos).
8. Audience-related, “pathotic” assessment: previous beliefs of audience. Relative to argumentative practice involved (Cicero).
9. External coherence, fidelity to the real, extra-diegetic world. Degree of realism (a complicated issue in itself).
10. Fidelity to human values: reliability and applicability of the story. Degree of humanism: ethical assessment (Fisher, Cicero).

Now, what can we do with this growingly sophisticated list? (It could be easily extended). First of all, I see many problems in taking these criteria as a growing number of requirements that would eventually take us somehow closer to a kind of definitive list of necessary and sufficient conditions for the assessment of any story as “credible”. But the alternative to such an approach is in the hands of argumentation theory.

If we assume that the process of evaluating the credibility of a story would be an argumentative practice in itself that would require arguments supporting it (or meta-arguments in case our story is already a substantial part of an argument) and further arguments if challenged, then criteria as the ones we have been reviewing (and other conceivable ones) would be possible (more or less combinable in argumentative structures) motifs or topics providing warrants for arguing for the credibility of a story or for challenging it in an argumentative interchange. Our proposal would oppose these two conceptions and usage of such criteria

* Criteria as conditions or requirements for the *qualitative* assessment of

narrative argumentative discourse. An approach that would imply discussions about the inclusion/exclusion of individual criteria and about their necessity/sufficiency, vs.

* Criteria as topical suggestions providing reasonable warrants for (meta)*argumentative* assessment, depending on things like: i) possible argument-types involved in the assessed discourse (i.e. different argument schemes would require different criteria for the assessment of the narratives making part of them); ii) discursive interactive context with possibly competing stories (i.e. assessment would in most cases be *comparative*, Marraud, 2013, p. 149ff.) or iii) objectives of the particular argumentative practice in which the narrative appears.

This approach is coherent with my general standpoint that argument evaluation and premis assessment are, finally, argumentative practices themselves, which may involve a variety of warrants and lines of argument.

The different theorist and authors that we have reviewed as providing us with criteria for narrative credibility, coming from different traditions and interested in diverse kinds of discourse, have coherently pointed to different aspects that could be conceivably used in arguing for the correctness, reliability or truthfulness of our stories and therefore for their usefulness as evidence in argumentative discourse.

Such an aproach is, in my view, applicable to any process of argument evaluation as reveal the different CQ's involved in assessing argumentation schemes which may be easily multiplied in several ways, especially if we take into account pragmatcal and rhetorical issues. But in the case of our narratives, moreover, I think we must also acknowledge some rather intractable additional problems. In the next section I will concentrate on those regarding what in our summary list was criterion 9): the requirement of realism.

5. Narrative realism

What exactly is “a realistic narrative” is not a question that we can answer in any easy way. Literature scholars have been dealing with this topic for at least the last 150 years (cf. classics as Booth, [1961]1983; Stevick, 1967) and the answers are multiple and historically changing. Wayne Booth in his classical *The Rhetoric of Fiction*, acknowledged that general rules fail in providing good answers: there

are too many ways of being realistic and of conceiving of realism. More recently, Claudia Jünke (forthcoming), has presented a study about three French writers: Marivaux, Diderot and Stendhal, all of whom use very different literary devices (although in all three cases we are talking about explicit meta-linguistic authorial interventions) to account for the verisimilitude of their tales and novels. Jünke's study proves a certain historical variation and evolution in the conventional ways of arguing, within literary narrative, for verisimilitude. If we take in account the possibilities exploited by more contemporary novels, in which avoidance of authorial interventions becomes the norm, things get even more complicated. It is, of course an endless issue.

For our purposes though I would just suggest that we take into account these two rather reasonable and relevant claims:

- a. we are not really sure of what is *plausible* in human affairs, the infinite complexity and unexpectedness of human life will always be there; it is the kind of realm where we should not look for a complete system of rules (Cf: Wittgenstein on *Menschenkenntnis* or "knowledge of human nature", PI §355-356, Cf. Bouveresse, 2007, pp. 80-81);
- b. storytelling is a way (one of our most basic ways) to explore what's plausible in human affairs: so the relation narration/reality is inescapably circular.

Now, regarding (a), I would say that it is part of our condition that the inconceivable, the unexpected in many cases happens in human affairs and we cannot really construe a theory that would overcome this situation, among other things because we are not allowed to make lab-experiments about what would happen if so-and-so happened regarding human life and affairs.

Krzysztof Kieślowski's film *La double vie de Véronique* (1991) is precisely about an author (a storyteller and, ironically enough, a puppeteer) who is not sure about the plausibility of a certain tale he has imagined and tries to put part of the plot into practice, inducing a girl to take certain actions just to see whether such actions are conceivable for her. The film shows how inadmissible and inhuman this "playing with others as puppets" is, even in the case of apparently inconsequential actions (as those in the film which are not really dramatic). Then, (b) is our alternative, one of our alternatives to this and Kieślowski's film is finally a piece of human life storytelling regarding the intrinsic difficulties of human life storytelling. Kieślowski uses a fiction film, a narrative, to show us that we cannot make non-narrative or real-life experiments to test stories.

This circumstance exposes the intractable circularity of the relationship between reality and narrative or storytelling. When we (in a spontaneous, natural way, in Fisher's sense) find a narrative plausible, in part we may be comparing it with what we have already experienced (it rings true because it's similar to what we know) or, alternatively, we may be partly surprised (and nevertheless convinced) by what it reveals about human nature and, from then on, apply it in our understanding of real situations. This balance is rather complex and it may be further complicated.

From the point of view of argumentation theory, we could say, with Perelman, that narratives (be them fictive or not) are partly "based on the structure of reality", partly "founding the structure of reality" (1958, pp. 351ss, 471ss). We'll have to decide in each case and depending on the characteristics of the discourses (including the particular types of argument involved) and discursive interchanges in which the narratives are inserted, which of these aspects is more relevant and should be taken into account in our analysis, evaluation or challenge.

6. Conclusion

If we assume that the evaluation of arguments or parts of arguments can be conducted in an argumentative way and become an argumentative practice in itself, we will be prepared to listen to different ways of arguing for the adequacy of the stories involved in our practices of giving reasons.

For example, Aristotle's maxim warranting the use of past stories derived from facts as evidence to be taken into account in decision-making processes, by means of arguments from example, or *paradeigmata* and which reads: "*for the most part what's coming will be similar to what's already happened*," (Rhet. II.20) might seem fairly reasonable. But then so it is (especially for our modern sensibility) Richard Ford's justification of the verisimilitude of the story he tells in the novel *Canada*:

I can't make what follows next seem reasonable or logical, based on what anyone would believe they knew about the world. However, as Arthur Remlinger said, I was the son of bank robbers and desperadoes, which was his way of reminding me that no matter the evidence of your life, or who you believe you are, or what you're willing to take credit for or draw your vital strength and pride from -anything at all can follow anything at all. (Richard Ford, Canada - 2012)

I think both are usable (and in fact used) warrants that I personally would accept

as *prima facie* good reasons supporting stories in different settings and for different purposes. They are both rather extreme though and I would certainly prefer more balanced principles for “important” or “consequential” decisions. Ironically enough, if decision-making or other serious purposes are lacking or avoided and the end of our stories is something like *frivolous entertainment*, we may always abide with Mark Twain’s warning at the beginning of *Huckleberry Finn* which prevents his novel’s serious use as *evidence* by precisely forbidding its narrative assessment:

Persons attempting to find a motive in this narrative will be prosecuted; persons attempting to find a moral in it will be banished; persons attempting to find a plot in it will be shot. (quoted by P. Stevick, 1967, p. 3).

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NOTE

i. “Probabilis fit expositio, si sit argumentosa, si consentanea rebus, si per se consequens” (Agricola, 1992 [1539], p. 350).

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