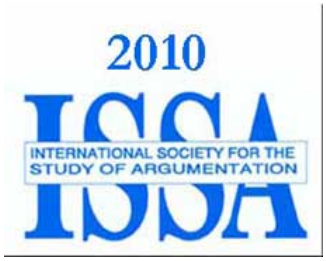
ISSA Proceedings 2010 – A Critical-Rationalist Approach To Premise Acceptability



1. Introduction

In this paper I consider the problem: '*When is a statement acceptable as a premise in an argument?*' This question is widely discussed in informal logic and practical reasoning circles, but most of these considerations presuppose the correctness of a justificationist epistemology: where the information comes from is of paramount importance in assessing its legitimacy. This is explicit in the title of an important paper by Freeman (1996): "Consider the Source". Not only has justificationism got many faults, some of which I mention in the next section, but also the audience to whom the argument is addressed tends to be overlooked. In an argument we are, typically, trying to convince one or more people of something that they are initially reluctant to accept. We do this by showing them that it follows from premises that they do accept. My approach puts the emphasis on the audience to whom the argument is addressed.

I see premise acceptability as being part of the broader issue of testimony and I have developed a critical-rationalist account of how we respond to the assertions of others: we accept them unless we have a reason not to. (Critical rationalism is opposed to all forms of justificationism.) We do not need a reason to accept testimony. We have a tendency to believe other people and the default position when we hear or read an assertion is simply to accept it. The proposal I present in detail below is that a premise is acceptable in an argument if the audience has no objection to it. I also show that this proposal is better than a widely accepted account of premise acceptability.

2. Critical Rationalism

'Critical rationalism' is the name given to the philosophy developed and elaborated by Popper. It is a species of rationalism and, as such, is opposed to all forms of irrationalism. Popper does not try to give an exhaustive characterisation of all the forms that irrationalism has taken. He, rather, focuses on what he takes

to be its key component: other people's opinions and arguments are not taken at face value. Irrationalists see thought as being 'merely a somewhat superficial manifestation' of what exists in 'the "deeper" layers of human nature' (Popper 1966, p. 235) and they look for the hidden motives from which they believe theories and arguments spring.

Rationalists seek 'to solve as many problems as possible by an appeal to reason, i.e. to clear thought and experience, rather than by an appeal to emotions and passions' (Popper 1966, p. 224). Popper (1966, p. 225) sums up his own brand of rationalism by means of the formula: '*I may be wrong and you may be right, and by an effort, we may get nearer to the truth*'. This attitude of reasonableness, as Popper calls it, may sound simplistic, but it encapsulates a many-faceted and fecund position. At its heart is a readiness not to lightly dismiss contrary opinions and a willingness not to ignore or evade criticisms directed at your own views. It is an attitude that welcomes such criticisms and actively encourages them. A moral commitment is required to adopt the attitude of reasonableness (Popper 1966, p. 231). This is one of the most distinctive features of critical rationalism. Living in accordance with this attitude is not an easy thing to do. It involves an almost daily struggle not to dismiss, in one way or another, inconvenient truths and irritating arguments that do more than merely suggest that our carefully-worked out opinions are not as perfect as we would like them to be.

Popper (1966, pp. 215–216) mentions several methods that irrationalists use to 'unveil the hidden motives behind our actions'. A psychoanalyst, for example, presented with an objection to one of Freud's theories, may say that that objection is due to the critic's repressions. A Marxist may well dismiss an opponent's disagreement by saying that it is due to his class bias and a sociologist of knowledge by saying that it is due to his total ideology. (This method, when used by a sociologist of knowledge, is dubbed 'socio-analysis'.) An Hegelian faced with an argument that shows his position to be inconsistent may proclaim that contradictions are fertile. A philosopher of meaning presented with objections to his ideas may well dismiss the views of his opponents as being meaningless. This is a very powerful way of dealing with criticism as it is always possible to use such a narrow conception of meaning that makes any inconvenient question senseless (Popper 1975, p. 51).

The practice of arguing logically exists in present-day societies and has existed for thousands of years. The difference between the rationalist and the irrationalist

is not that the former engages in this practice and the latter does not, but rather in *how* they participate. Someone is an irrationalist if he fails to take *some* arguments seriously (Popper 1966, p. 240). An irrationalist may well treat certain arguments at face value, but 'without any feeling of obligation'. Thus, Popper (1966, p. 251) considers Arnold Toynbee, the author of the monumental *A Study of History* (1934–1947), to be an irrationalist even though he uses 'a fundamentally rational method of argument' when discussing different historical interpretations of the same series of events. He is an irrationalist because, when discussing Marx, he does not reply to his opinions and arguments rationally, but rather explains them away as being the product of Marx's social habitat rather in the manner of the sociologists of knowledge using their irrational methods, including that of socio-analysis.

As already mentioned, critical rationalism is opposed to all forms of justificationism. I have discussed the main differences between justificationism and anti-justificationism elsewhere (Diller 2006). I will briefly mention a few of the key differences here. (Unfortunately, I do not have enough space to discuss probabilistic varieties of justificationism and so my considerations are restricted to non-probabilistic justificationism.) These key differences can be brought out by considering some of the things that the justificationist Gilbert says about argumentation. It should be noted that my discussion of Gilbert's ideas is restricted to what he says in his book *How to Win an Argument* (1996). I do not wish to suggest that my criticism of what he says there necessarily applies to the more sophisticated analysis of argumentation that he presents in *Coalescent Argumentation* (1997) which, unfortunately, I do not have space to examine with the thoroughness that it deserves.

In its simplest form, a justification for some standpoint is a logical argument the conclusion of which is that very standpoint and the premises of which are themselves justified statements. Gilbert (1996, p. 35) accepts this idea of a justification and he proposes the following Principle of Rationality: '*Always assume that people have reasons for their beliefs*.' On the basis of this he gives the following advice to those engaged in an argument (p. 32): '*Always attack the reasons for a claim, not the claim itself*.' This is bad advice for at least three reasons. In the first place, as Harman (1986, pp. 38–40) stresses, people rarely keep track of the reasons for their beliefs. This means that they simply would not be able to say why they hold certain beliefs. In the second place, showing that the

reasons for a claim are false tells us nothing whatsoever about the truth or falsity of the claim itself, as a valid argument with just a single false premise can have either a true or a false conclusion. In the third place, it opens the door either to a charge of circularity or to the possibility of an infinite regress. Gilbert (1996, p. 34) is honest enough to acknowledge these faults of his advice: 'The sequence of claims and reasons may even come back and meet itself, so that in the end your beliefs form a circle.' Arguing in a circle is generally acknowledged to be fallacious. The threat of an infinite regress has even more dire consequences: Someone who believes something without reason is being irrational. In terms of argument, being rational means providing reasons for beliefs. In the end all of us may be irrational, since sooner or later we reach a point of ultimate beliefs (for which it is impossible to provide reasons).

Rather than trying to improve his conception of rationality, Gilbert does not say anything more about the possibility that we are all irrational and carries on as if nothing is seriously wrong with his characterisation of rationality. A critical rationalist would agree with the deficiencies of rationality that Gilbert draws attention to, but he or she would say that these only apply to the particular account of rationality that Gilbert accepts. There are other conceptions of rationality that do not have these faults; Popper's critical rationalism is one of these.

Gilbert's approach exemplifies several elements of justificationism. One of these is the fusing of criticism with justification (Diller 2006, p. 123). This means that the main or only kind of criticism that is countenanced is that in which a claim is criticised by attacking the reasons that supposedly support it. In the previous paragraph I showed that Gilbert explicitly endorses this view. Another constituent of justificationism illustrated by Gilbert's position is that there have to be claims that cannot be criticised (Diller 2006, p. 123). Gilbert calls these 'ultimate beliefs'; for him they prevent an infinite regress of justifications being generated. As they have no reasons to support them there are no reasons to attack. Hence, they cannot be criticised.

Critical rationalists do not link criticism and justification. They employ various methods of criticism (Diller 2006, pp. 124–126). However, they do not criticise a claim by attacking its reasons. Critical rationalists would not give anybody the advice to attack the reasons for a claim rather than the claim itself. They would, rather, advise those involved in argumentation to directly criticise any claims they

find objectionable. One kind of criticism they do use is that of criticising a claim by showing that it has clearly false consequences. Since falsity is retransmitted in a valid argument, this would mean that the claim itself was false. In general, they hold that the origins of a theory are irrelevant to its truth; the consequences of a standpoint are far more important in assessing its value. Gilbert (1996, p. 31), however, tells people not to criticise claims directly and attempts to provide a rationale for this: 'If the reasons are good and the logic is correct, you are bound to accept the claim. This is why you never attack claims directly.' He is correct in saying that truth is transmitted in a valid argument. However, falsity is not. If the reasons are bad and the logic is correct, you are not bound to reject the claim. (It is also correct to say that if the reasons are good and the logic faulty, then you are not bound to reject the claim.) Just because one particular set of reasons for a claim has been shown to be false does not mean it is irrational to accept that claim. There may well be other considerations that show it is rational to believe it and carry on believing it.

As already mentioned, one of the differences between justificationists and anti-justificationists, such as critical rationalists, is that justificationists are forced to admit that some statements are beyond criticism. Anti-justificationists, by contrast, are anti-authoritarian in the sense that they believe that everything can be criticised and that nothing is immune from criticism.
A critical rationalist would not endorse Gilbert's Principle of Rationality. In its place he or she would put something along the following lines: Assume that people are either unaware of any criticisms of their beliefs or they can rationally counter any criticisms of which they are aware. A critical rationalist does not think it is irrational to hold unjustified beliefs; it is irrational to carry on believing something which has been successfully criticised. The critical rationalist, however, needs to explain how we acquire our initial stock of beliefs, and continue adding to it throughout our lives, and this I do in the next section.

3. Testimony
Most of our beliefs have been received from the testimony of others. Before continuing, I need to point out that by 'testimony' I mean much more than just eyewitness testimony. 'Testimony' refers to propositional information about anything that we receive from another person in either written or spoken form. Virtually all of our knowledge about history and science, for example, comes from testimony. This is how we know that the Battle of Thermopylae, between the

Greeks and Persians, took place in 480 B.C. and that the losing Greek force was led by the Spartan king Leonidas. It is also how we know that the speed of sound in dry air at zero degrees Celsius is 331.4 metres per second. I would also like to mention that, unlike some writers, I do not distinguish between *belief* and *acceptance*. Scholars who do distinguish between these differ amongst themselves as to how acceptance should be understood and I do not have the space here to evaluate their analyses. I do not deny that there are several different ways in which we can hold propositional information, but for my purposes I only need to consider one such method.

We have a tendency to believe what other people assert and I have argued elsewhere that we respond to testimony as if that response were governed by the defeasible *acquisition rule*: 'Accept other people's assertions' (Diller 2008, p. 434). We do not need a reason to accept testimony. In the absence of any other considerations we cannot but believe what others assert. It should be noted that our acceptance of testimony is neither the result of a decision nor a result of argumentation. Thus, the default position is that, when we hear or read an assertion, we simply accept it. However, we do not believe every piece of propositional information we come across. The acquisition rule is *defeasible*: it can be overruled. Young children are usually seen as being more prone to believe what they are told. However, as we grow up we learn that, for various reasons, the assertions that people make are not always true. People sometimes lie deliberately or they may be genuinely mistaken in what they themselves believe. We also learn that not all written information is correct. So, we learn to overrule the acquisition rule. The fact that such overriding factors are learnt has at least two consequences, namely that the way in which people respond to testimony changes over time and that not everybody necessarily responds to the same piece of testimony in the same way.

We receive information from various sources, including other people in the flesh, books, journal articles, the media and the Internet. For example, a visitor to London who asks a policeman for directions to the British Museum is likely to receive the information requested and accept it as being true; a person interested in Ancient Egypt will learn a great deal by reading books about that period. In considering the factors that people take into account when they are deliberating whether or not to reject an assertion, it is helpful to group those factors into categories. No doubt, several different categorisations are possible, but the most

obvious one is suggested by the nature of communication itself. In its simplest form, communication involves the production of a message, in spoken or written form, by a single speaker or author and its reception by a single hearer or reader. Thus, many of the overriding factors will fall into one of the following three categories: those relating to the assertor, those relating to the content of the assertion and those relating to the recipient of the message. Factors relating to any of these three categories may come into play no matter where the encountered assertion is found. They apply equally to spoken assertions as well as to those found in books, in newspapers, in articles and on the Internet. In the case of spoken, but not written, assertions, whether heard on the radio, television or when listening to another person in the flesh, there is another category of factors that relate to the manner in which the spoken assertion is delivered. There are also specific factors pertaining to the medium by which the assertion is conveyed. Thus, there are specific factors that apply to assertions heard on the radio that do not apply to assertions read in a book. Some examples will make this clearer. An example of an overriding factor relating to the recipient of information is that the information is inconsistent with his or her pre-existing knowledge. Usually, people reject information that conflicts with what they already know. I recently read, for example, Kynaston's book *Family Britain* (2009) in which the author states that Colin Wilson, one of the most influential of the Angry Young Men of the 1950s, came from a lower middle-class background (p. 643). I did not accept this claim as, being interested in the Angry Young Men, I have read a lot about them and know from various sources that Wilson came from a working-class family and has never made a secret of this. In this case I overruled the operation of the acquisition rule.

Many overriding factors apply to the person making an assertion. Hume was aware of several of these. In section X of *An Enquiry Concerning Human Understanding* (1748) he mentions various factors that we take into account when assessing the truth or otherwise of what other people tell us. He says that we consider the character of the person involved. If he is of doubtful character, then we do not necessarily accept his testimony. We consider whether or not the person has an interest in what he tells us. We also take into account the manner of the person's delivery. If he either hesitates or presents his testimony with 'too violent asseverations', then this may arouse our suspicions. Hume's observations are as relevant today as when he first made them, though they should not be thought of as an exhaustive list of possible overriding factors that people use

when listening to someone talk.

It should be stressed that in the critical-rationalist account of testimony that I am putting forward the beliefs we acquire by accepting other people's assertions are not justified in any way whatsoever. They just are beliefs that we have obtained from testimony. We cannot help but believe other people, unless we have some reason not to, as the powerful tendency to accept others' assertions has been built into us. I have argued elsewhere against the idea that testimonial beliefs are justified in any way (Diller 2008, pp. 421–425).

Two mechanisms are needed to account for the spread of information across time and between people. In addition to the acquisition rule, which explains how people respond to the propositional information they come across, we also need a means of making such information available to other people. All we need for this purpose is the social practice or speech act of assertion. Assertion and the acquisition rule are all that is required to explain how propositional information is transmitted between people.

Unfortunately, for many reasons, including our inability to always spot when other people are lying and because people, being fallible, do make mistakes, we acquire some false beliefs by accepting the testimony of others. We thus need to check some of the propositional information we come across. We cannot test all this information because there is so much of it and because examining information can be a very time-consuming activity. However, it is worth investing the time and energy to investigate the truth or falsity of information that is particularly important to us or which we find intriguing for some reason or other. Thus, in addition to *absorbing* propositional information, as explained by the acquisition rule, we need sometimes to engage in *checking* such information. There is a division of intellectual labour involved in the task of testing specialised information as not everybody is equally equipped with the expertise needed to evaluate the veracity of all kinds of information. Thus, an ancient historian would not be the right person to ask to investigate the speed of sound, but he would be able to research what happened at the Battle of Thermopylae. Most adults, however, have at least a rudimentary understanding of how to test everyday assertions and this can be improved by being taught critical-reasoning skills or informal logic. The activities of absorbing propositional information and criticising it are interleaved in our intellectual endeavours. An account of testimony that recognises them both can, therefore, be called a *two-phase* model. I have

elaborated such a model elsewhere (Diller 2008, pp. 433–442).

4. Premise Acceptability

I see the issue of premise acceptability as being part of the more general topic of testimony. A theory of testimony must be able to account for our acceptance of other people's assertions no matter what, if anything, we intend to do with such information. Some people, for example, like to acquire knowledge for its own sake without any thought of its utility. Some of the information we acquire, however, guides what we do. Knowing that the weed henbane is poisonous may well save your life as you are unlikely to put it into your salad. (The English celebrity chef Antony Worrall Thompson advised readers of the August 2008 issue of *Healthy and Organic Living* magazine to add henbane to salads; he had confused it with the weed fat hen which actually is sometimes included in salads.) In the case of premise acceptability, we are interested in the acquisition of propositional information which will form the foundations of various sorts of argumentation. Two people, for example, may be discussing whether or not they should go swimming in the ocean later that day. In the course of their conversation one of them asserts that she heard the weatherman forecast a thunderstorm. The other one accepts this and, believing that swimming during a thunderstorm is dangerous, concludes that it would be dangerous to go swimming. This might well influence what they decide to do.

My proposal is that premise acceptability is governed by the acquisition rule. Thus, in the case of a face-to-face argument, a premise is acceptable if the antagonist has no reason to overrule the acquisition rule when the protagonist asserts that premise in the course of the argument. Different people, as mentioned above, do not necessarily respond to the same piece of information in the same way. There is great variety in the factors that people use to overrule the acquisition rule. Because of this I think it is a mistake to look for intrinsic properties of statements that would make them universally acceptable as premises. In a face-to-face argument the onus is on the antagonist to inform the protagonist if he or she has any objections to a statement being considered as a premise. If the protagonist asserts a proposition which the antagonist does not explicitly reject, then both parties can use that proposition as a premise in their future arguments.

Many arguments are written in various sorts of document. Arguments occur, for example, in books, journal articles, newspaper columns, Internet blogs and so on.

Similar considerations apply to all these cases, so I will only consider written arguments as they occur in journal articles. With slight changes what I say will also apply to other sorts of written arguments as well. In a journal article, premises are acceptable if it can be assumed that the intended readership would have no objection to them. The editor and referees are usually the final arbiters of which premises are acceptable and they are guided by the purpose and scope of the journal. Someone writing for the Marxist journal *Capital & Class*, for example, can assume that the intended readership accepts the fundamental tenets of Marxism and so these do not need to be argued for. Similarly, someone submitting an article to *Analysis*, a journal of analytic philosophy, would be advised not to take for granted the core assumptions of critical rationalism as these are not accepted by analytic philosophers who constitute the intended readership. There are, of course, journals like *Philosophy of the Social Sciences* which present themselves as not being partisan. In every issue they state: 'No school, party, or style of philosophy of the social sciences is favored. Debate between schools is encouraged.' Even in such cases, however, assuming the claim of non-partisanship to be correct, the intended audience can be assumed to have no objection to certain statements which can form the starting points for various sorts of argument. The journal is aimed, after all, at philosophers with a special interest in the social sciences.

Some of the advantages of my proposal are best brought out by contrasting it with a widely accepted alternative account. I give references to the version found in chapter 4 of Bickenbach and Davies (1997) because their account is clearly and concisely presented, but similar accounts are also to be found in books by Govier (1988, ch. 5), LeBlanc (1998, ch. 6), Moore and Parker (1989, ch. 3), Conway and Munson (2000, ch. 11) and no doubt many others.

Bickenbach and Davies (1997, p. 159) propose that a premise is acceptable if it is a necessary truth or it is a controversial claim accepted by both the protagonist and antagonist for the sake of argument. A premise is also acceptable if it is a contingent truth, but in this case it must either be supported by a cogent sub-argument or form part of common knowledge or be asserted by an appropriate expert or be a credible report of personal experience. I will look at each of these kinds of supposedly acceptable premises in turn. Thinking that a premise is acceptable because it is a necessary truth appears, at first sight, to be entirely reasonable and straightforward. Bickenbach and Davies (1997, p. 158) say that

there are two types of necessary truth, namely statements that are true by definition and logical truths. Quine's essay "Two Dogmas of Empiricism" (1951) has spawned what seems to be an interminable flood of articles about analyticity and what it is for a statement to be true by definition. There exists no consensus and the protagonist and antagonist in a dispute may well disagree about what is true by definition. Just because one person thinks a statement is true in this way does not mean everyone will. Only if the protagonist and antagonist agree on this matter can the relevant statement be accepted as a premise and this is exactly what my proposal amounts to in this case.

People also disagree about certain logical truths. Intuitionistic mathematicians and philosophers do not accept that many classically true logical laws, such as the law of excluded middle, really are correct. Thus, if the antagonist in an argument is an intuitionist, the protagonist cannot use the law of excluded middle as a premise as it is unacceptable to the antagonist. In this case my proposal for premise acceptability fares much better than that of Bickenbach and Davies (1997). It should be noted that intuitionists are not the only people who object to certain classically true logical laws. Various philosophers and logicians have proposed revisions of classical logic as documented, for example, by Haack (1996).
Bickenbach and Davies (1997, p. 163) allow controversial and even false statements to be acceptable as premises if the protagonist and antagonist agree to accept them because they are interested in seeing what would follow from them if they were true. They imagine a situation, for example, where the statement that Napoleon won the Battle of Waterloo is accepted in order to test the claim that 'later developments in Russia were a direct result of Napoleon's defeat'. I have no objection to this and it is easily accommodated within my general approach to premise acceptability.

For Bickenbach and Davies (1997, p. 159), a contingent truth is acceptable as a premise if either it is supported by a cogent sub-argument or it is a part of common knowledge or it is asserted by an appropriate expert or it is a credible report of someone's personal experience. A premise supported by a cogent sub-argument raises no new issues since it itself must have premises and some account must be given of their acceptability.

Bickenbach and Davies (1997, p. 159) see common knowledge as being relative to a country, for they say that it is common knowledge for 'people living in Canada'

that ‘Canadian winters are colder than Canadian summers’ and ‘among North Americans’ that ‘one of the most important holidays in the U.S.A. occurs in July’. The idea seems to be that if you are arguing with someone in Canada you can treat everything that is common knowledge in Canada as an acceptable premise and if you are arguing with someone in North America you can regard everything that is common knowledge there as an acceptable premise. Unfortunately, they do not provide any rationale for why this should be the case. Why relativise common knowledge to a country? Why not to a state, region, county, province or even tribe? The boundaries of many countries, such as those in Africa, were imposed by colonial powers with no regard to the needs or concerns of the indiginous populations. Why should common knowledge be relative to such an arbitrary political construct? In deciding which premises are acceptable we must always take account of the audience to whom the argument is addressed. Someone putting forward an argument in a newspaper article in Canada, say, needs to assume certain propositions as premises. On my proposal, these will be things that the intended readership of the newspaper would accept. This would depend upon various factors including the political affiliation of the newspaper and whether it was a serious paper or merely a tabloid. The category of such statements is not the same as what is common knowledge in Canada. That category is proposed without reference to the audience being argued with. Moreover, I have provided a rationale for my proposal, whereas Bickenbach and Davies (1997), as already mentioned, have not provided one for theirs.

In the case of expert or personal testimony the justificationist roots of the approach proposed by Bickenbach and Davies (1997) are finally made explicit. The idea is that the source of certain statements renders them acceptable. The truth is that we accept propositional information from any source unless we have a reason to reject it. We do not accept what an expert says, for example, because the information comes from an expert; the fact that it comes from an expert affects the kind of reasons we can give for rejecting it. Expert testimony can indeed be rejected and experts can and do contradict one another. A widely reported recent example concerns the possibility that chronic fatigue syndrome may be caused by the XMRV virus. There was considerable media coverage of the results of a study by Lombardi et al. (2009) suggesting that maybe as many as 95% of sufferers had the XMRV virus compared to about 4% of the general population. A few months later, a study by Erlwein et al. (2010) found that none of the patients with chronic fatigue syndrome they tested had the XMRV virus. The

truth of the matter is not decided by working out which team of researchers is the more expert. What is happening is that a critical discussion is taking place in order to try and explain both findings and understand what is really going on. Many people also feel that more research needs to be done. Examples of such discussions can be found, for example, on a number of websites, including those of the Whittemore Peterson Institute for Neuro-immune Disease (www.wpinstitute.org), ME Research UK (www.mere-earch.org.uk) and the UK-based ME Association (www.meassociation.org.uk). (These websites were consulted in May 2010.) This is exactly what a critical rationalist would expect.

In the case of personal testimony, again, we do not accept someone's testimony because they are particularly reliable and the testimony is credible. We accept every-one's testimony unless there are reasons to reject it. The concepts that wear the trousers are those of unreliability and implausibility. We assume that everyone is reliable and all testimony is credible unless we have a definite reason to think the assertion is unreliable or the testimony implausible.

As well as having criteria of acceptability, Bickenbach and Davies (1997, p. 160) also have principles of unacceptability. There is no point in discussing these at length as they are mirror images of the acceptability criteria and so add nothing new to their account. Thus, corresponding to the rule that a premise is acceptable if it is part of common knowledge, they propose that a premise is unacceptable if it is refuted by common knowledge.

This comparison between my proposal and that of Bickenbach and Davies (1997) shows the advantages of my way of looking at things and the flaws in a widely accepted account that seeks to uncover intrinsic properties of statements that render them universally acceptable as premises irrespective of the context in which they are put forward.

5. Conclusion

In this paper I have presented a proposal concerning premise acceptability and compared it to a widely accepted alternative account. My proposal sees premise acceptability as being part of a more general theory of testimony and the specific account of testimony that I have made use of is a critical-rationalist one which sees us as accepting information unless we have definite reasons not to. Furthermore, my proposal for premise acceptability emphasises the role of the audience to whom an argument is addressed rather than looking for intrinsic

properties of statements that would make them universally acceptable as premises.

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ISSA Proceedings 2010 – "The Truth And Nothing But The Truth?": The Argumentative Use Of Fictions In Legal Reasoning

1. Introduction: the concept of legal fiction ***[i]***

In eighteenth-century England, as we can see from a notorious story reproduced in different contemporary pieces of writing in the philosophy and history of law (Perelman 1999, p. 63; Perelman 1974, p. 348; Friedman 1995, p. 4, part II), the provisions of the criminal law insisted on the death penalty for every culprit accused of "grand larceny". According to the same law, "grand larceny" was defined as the theft of anything worth at least two pounds (or 40 shillings). Nevertheless, in order to spare the lives of the defendants, the English judges established a regular practice which lasted for many years, to estimate every theft, regardless of its real value, as though it were worth 39 shillings. The culmination of that practice was the case when the court estimated the theft of 10 pounds, i.e. 200 shillings, as being worth only 39 shillings, and thus revealed an obvious distortion of the factual aspect of that, as well as of many previous cases.

The said situation and the corresponding judicial solution of it represent one of the most utilized classical examples of the phenomenon of what is called "legal fiction" (or more adequately in this case, "jurisprudential fiction"). This concept designates a specific legal technique based on the qualification of facts which is contrary to the reality, that is, which supposes a fact or a situation different from what it really is, in order to produce a certain legal effect (Perelman 1999, p. 62; Salmon 1974, p. 114; Foriers 1974, p. 16; Delgado-Ocando 1974, p. 78, 82; Rivero 1974, p. 102; de Lamberterie 2003, p. 5; see also Smith 2007, p. 1437, Moglen 1998, p. 3, part 2 A).

However, this definition is not free from internal difficulties. Namely, the use of the terms “facts” and “reality” in its formulation immediately triggers the controversy between the common-sense, unreflective concept of factual reality as something that is simply “out there”, waiting to be checked and identified, and the more sophisticated concept of “facts” and “reality” appropriate for the legal context. Namely, the latter takes into account the constructive capacity of institutional norms and rules to produce complex forms of legally relevant realities (“theft”, “murder”, “marriage”, “contract”, “association”, etc.), consisting of a specific mixture of “brute” and “institutional” factual elements (Searle 1999, pp. 122–134).

That is why some authors insist on the point that in order to be counted as proper legal fictions, it is not enough that the fictional legal statements simply involve an element of counterfactuality opposed to the common-sense reality; they must, moreover, be contrary to the existing *legal* reality. Thus, for instance, Perelman claims that if the existent legal reality is established by the legislator, like in the case of associations and other groups of individuals that are treated as legal personalities, then we are not entitled to consider it legal fiction, although it deviates from the psychological, physiological and moral reality in which the persons are identified as individual human beings. However, if, Perelman argues, a judge grants the right to sue a group of individuals that does not represent a legal personality, while the right to sue is reserved only for groups constituted as legal personalities, he is in fact resorting to the use of legal fiction (Perelman 1999, pp. 62-63). A similar position is also advocated by Delgado-Ocando, who subscribes to Dekker’s view that legal fiction should not be considered a violation of “natural facts”, but, essentially, a deliberately inaccurate use of the actual legal categories (Delgado-Ocando 1974, p. 82). Thus, using the above-mentioned definition of legal fictions as “a qualification of facts contrary to reality”, I will bear in mind this specific meaning of “contrary-to-legal-reality”, because I see as convincing the view that the existing legal reality, which includes the factual components but is not reducible to them, is the real target of the fictional reconfiguration by means of this peculiar legal technique.

Within this conceptual framework, the main goal of my approach to the issue of legal fictions will be twofold. First, through the analysis of some practical examples of legal fictions taken from different national jurisprudences, I will attempt to isolate the general argumentative mechanism of legal fictions by using

some of the fundamental ideas and insights developed in different branches of the contemporary argumentation theory. Second, given the possible abuse of legal fictions as an instrument of legal justification, the emphasis will be placed on the issue concerning the possibility for the formulation of certain criteria in establishing the difference between the legitimate and the illegitimate use of this argumentative technique. However, in order to do this it will be necessary, first, to define the distinction between legal fictions and another kind of legal phenomena with which they are sometimes confused – legal presumptions, and second, to distinguish the different kinds of legal fictions that exist. Those distinctions will enable us to focus our attention solely on those aspects of the complex issue of legal fictions which are relevant for the purpose of this paper.

2. Legal fictions vs. legal presumptions

On a theoretical level, the question concerning the relation of legal fictions to legal presumptions is still a controversial one. The reason for this is most probably the fact that both legal fictions and legal presumptions establish a sophisticated relationship to the element of factual truth involved in a legal case in the sense that they both treat as true (in a legally relevant sense) something which is not, or may not be true in a factual sense. Thus, the presumption may be defined as an affirmation which the legal officials consider to be true in the absence of proof of the contrary, or even, in some cases, notwithstanding the proof of the contrary (cf. Goltzberg 2010, p. 98: "Affirmation, d'origine légale ou non, que le magistrat tient pour vraie jusqu'à preuve du contraire ou même dans certains cas nonobstant la preuve du contraire"). For example, a child born to a husband and wife living together is presumed to be the natural child of the husband; an accused person is presumed innocent until found guilty; an act of the state administration is presumed to be legal, etc., although in some cases those presumptions may be shown not to correspond to the factual state of affairs.

When discussing the issue of the relationship of legal fictions and legal presumptions, it is necessary to mention the classical dichotomy of presumptions into presumptions *juris tantum* and presumptions *juris et de jure*, i.e., "simple", rebuttable presumptions, which admit proof of the contrary, and "absolute", irrefutable presumptions, which do not admit proof of the contrary. For instance, the presumption of the paternity of the legitimate husband is rebuttable because it can be proven that the husband is not the real biological father of the child born within the marital union; on the other hand, the presumption that everyone knows

the law ("no one is supposed to ignore the law", or in the well-known Latin formulation, "nemo censetur ignorare legem") is usually treated as an example of an irrefutable presumption because it is not possible to avoid liability for violating the law in criminal or in civil lawsuits merely by claiming ignorance of its content.

This distinction is significant in the issue of legal fictions because they are sometimes assimilated into the category of irrefutable presumptions. Thus, for instance, Wróblewski argues that irrefutable presumptions are the source of legal fictions because they cannot be discarded and because they formulate assertions which cannot be demonstrated to be false by reference to reality (Wróblewski 1974, p. 67: "Particulièrement la source des fictions se trouve dans les présomptions irréfragables, *praesumptiones iuris et de iure*, car elles ne peuvent être écartées, elles formulent donc des assertions dont la fausseté n'est pas démontrable par une référence à la réalité").

However, the reasons for accepting this view do not seem to be conclusive. First, irrefutable presumptions and legal fictions establish different relations to the element of factual truth involved in a legal dispute. Namely, the irrefutable presumption just makes it irrelevant, in the sense that this kind of presumption does not allow the claims of the factual truth contrary to the presumed truth to be even taken into consideration in deciding the case. On the other hand, the legal fiction starts with the identification of the factual reality in the case at hand, but then distorts the standard qualification of facts that would be appropriate for this case in order to include them in another legal category and to produce the desired legal effect. Second, it seems reasonable to claim, as Foriers does, that legal presumptions and legal fictions belong, in fact, to different segments of legal theory and practice: the presumptions are related to the theory (and practice) of legal proof, regulating the possible objects of proof and the distribution of burden of proof between the parties, while legal fictions are related to the theory (and practice) of the extension of legal norms, or of their creating and legitimatizing (Foriers 1974, p. 8). That is why in the present approach, adopting the view of a fundamentally different nature of legal presumptions and legal fictions, my interest will be restricted only to the latter, without underestimating, of course, the genuine interest that legal presumptions legitimately raise as an object of study of contemporary research in legal argumentation.

3. Kinds of legal fictions

Legal fictions, as an interesting technical device, the use of which represents a

pervasive trait of the legal practice from Roman times to the present, are not a homogenous class. The kinds of legal fictions vary depending on the segment of the legal system in which they are created and utilized. Thus, according to the criterion of their origin, we can distinguish legislative, doctrinal and adjudicative (jurisprudential) fictions (Delgado-Ocando 1974, p. 92; Foriers 1974, p. 16).

Legislative fictions, being those established by the legislator himself, can be further sub-divided into the categories of "terminological" and "normative" fictions. In the case of terminological fictions, the legislator fictionally qualifies a factual situation which is obviously contrary to the common-sense conceptual reality, like in the case when the law stipulates that some physically movable objects – animals, seeds, utensils, etc. – are to be considered immovable goods (Article 524 of the French and Belgian Civil code). Normative legislative fiction, on the other hand, is that which adds a complementary norm to the terminological stipulation, because without invoking that norm it would be impossible for the fiction to play out its role. An example of this situation may be found in Article 587 of the French and Belgian Civil code, in which the legislator regulates the rights and duties of the usufructuary (a person who has the right to enjoy the products of property they do not own). Namely, the right to usufruct usually presupposes the conservation of the object (i.e. not damaging the property) that is being used. However, in order to further extend the right to usufruct also to things that cannot be used without being consumed, like money, grains, liquors, etc., the legislator is obliged to include a supplementary norm that, following the completion of the usufruct, the usufructuary should replace the consumed objects with such of similar quantity, quality and value. Thus, in this case, the fictional assimilation of expendable goods in the category of legitimate objects of usufruct is made possible by the introduction of a "meta-rule" that should justify or counterbalance the violation of the fundamental nature of the institution of usufruct (Foriers 1974, pp. 19-20).

Although the distinction between legislative and doctrinal legal fictions is not always easy to establish, it may be said that doctrinal fictions are theoretical devices whose function is to pave the road for the reception of new legal categories or to justify the implicit ideological basis of the legal system. Thus, the theories of the "declarative function of the judge" (judges are not entitled to create or to interpret the law, that being the function of the legislator) and of the "inexistent gaps in the law" (the system of law is complete and capable of

regulating every legal dispute) are treated as examples of “doctrinal fictions”, which attempt to assure the theoretical and systematic stability of the actual legal order (Delgado-Ocando 1974, p. 99).

However, for the purpose of this paper, the most important and the most interesting for argumentative analysis are the fictions of the third, adjudicative kind (usually called “jurisprudential fictions”, especially in the French-speaking tradition). These are the fictions used in judicial reasoning as strategic instruments in attaining the desired aim by a deliberately inaccurate use of the existent legal categories and techniques of legal qualification. The specificity of jurisprudential fictions lies in their dynamic and unpredictable nature, in the sense that they are created “ad hoc” in the function of the resolution of a particular, usually difficult and complex legal case. As Perelman points out, their use is particularly frequent in criminal law, when the members of the jury or the judges strive to avoid the application of the law that they find unjust in the circumstances of the specific case. This is the case not only in the classical “39-shillings” example, but also in the twentieth-century French and Belgian legal practices, when in several cases involving euthanasia the jury did not find the defendants guilty of the death of the deceased, although in the corresponding national legislatives there was no established distinction between euthanasia and simple murder (Perelman 1999, p. 63).

Nevertheless, jurisprudential fictions are not restricted solely to criminal cases; they may also be used in other legal areas, such as constitutional, civil, administrative, international law, etc. One particularly illustrative example can be taken from a former Yugoslavian and, subsequently, Macedonian legal practice from the area of contract law in the late 1960s. Namely, the existent law on the sale of land and buildings recognized legal validity only to those agreements concluded in written form, explicitly denying it to the non-written ones. However, in deciding the practical cases in which the sources of the dispute were orally concluded agreements, and in order to prevent manipulations with their consequences (for instance, the attempts of their annulment following the completion of the transfer of the property and money), the court decided to assimilate oral agreements into the category of written agreements and to accord them the same legal status, provided that they had been carried out (decision of the supreme Court of Yugoslavia R. no. 1677/65 from 18.03.1966; cited from Чавдар 2001, p. 155).

Although jurisprudential fictions are usually generated in order to deal with perplexing practical cases, they may also function as a source in creating new legislative rules (as was actually the case with the "39-shillings decision", or with the decision of the Yugoslavian Supreme Court to treat oral agreements, under certain conditions, as if they were written ones, which were later incorporated in the law in the form of general rules). This is, amongst others, one of the important reasons which make the phenomenon of jurisprudential fictions worthy of theoretical and practical attention and which will be further commented on in the concluding section of this paper.

4. Jurisprudential fictions and their argumentative role

Regardless of the definition of legal fictions that we are ready to adopt, it is obvious that the strong counterfactual element necessarily involved in fictions which are used in judicial reasoning and motivation of judicial decisions makes their nature extremely controversial. Namely, it obviously collides with one of the fundamental demands of legal procedures – the need to establish the factual truth which lies in the basis of a lawsuit and to stick to it in the determination of the outcome of the legal dispute. Even if we agree that the concept of truth does not have the same meaning in the courtroom, in a scientific or philosophical investigation, or in everyday use, it cannot be denied that the mechanism of jurisprudential fictions is based on the deliberate refusal to adhere, for legal purposes, to the established truth of the facts in the case (for instance, the truth that the value of the theft is more than 39 shillings, or that the defendant voluntarily caused the death of another human being, or that the contract was not concluded in writing, etc.).

On the other hand, it is a well-known fact that the demand for the adherence to the truth in the adjudicative context cannot be easily disregarded because it arises primarily from the need to assure objectivity, impartiality and legal certainty in the administration of justice. Consequently, every aberration from it spontaneously raises suspicions that the respect of those fundamental values may be somehow placed in danger. This is perhaps the main reason why, in the history of legal thought, especially in the common law tradition in which the use of legal fictions in the process of adjudication was especially frequent, they were often perceived in a negative light, as a technique of manipulation by the judges, which corrupted the normal functioning of the legal system. The most prominent representative of that stance is Jeremy Bentham, in whose opinion legal fictions

were simply usurpations of legislative power by the judges. He even compares the fiction to a nasty disease, syphilis, which infects the legal system with the principle of rottenness (cf. Smith 2007, p. 1466; Klerman 2009, p. 2; Fuller 1967, p. 2-3). Furthermore, in a contemporary context, there are also opinions which label legal fictions as dangerous and unnatural technical means in the law (cf. Stanković, 1999, p. 346).

However, there is also another side to this, which, being more sympathetic to the phenomenon of legal (or, in this context, jurisprudential) fictions, treats them as an important, useful and generally legitimate legal technique. In this perspective, they are viewed, essentially, as instruments that help their authors to determine and justify the correct outcome of a legal dispute, to obtain a result which would be compliant to equity, justice or social efficiency (Perelman; cf. de Lamberterie, 2003, p. 5), especially in difficult and perplexing legal situations, when the established legal rules cease to "encompass neatly the social life they are intended to regulate" (Fuller 1967, p. viii). Thus, legal fictions are sometimes described as "white lies" of the law (Ihering; cf. Fuller 1967, p. 5), lies "not intended to deceive" and not actually deceiving anyone (Fuller 1967, p. 6), lies which are also "benefactors of law" (Cornu; cf. de Lamberterie 2003, p. 5) because they serve as a means to protect the important values of the legal and social world which may sometimes be endangered precisely by the very mechanical application of the existing legal rules.

As it is obvious even from this simplified description, the phenomenon of legal fictions mobilizes a corpus of very deep questions concerning the relations of law, reality and truth, the hierarchisation of legal values, the distribution of power between the legislative and the adjudicative officials within the framework of the legal system, the legitimate and illegitimate use of judicial discretion, etc. However, in my present approach, I shall focus only on those elements of the phenomenon of legal, or, more precisely, of jurisprudential fictions which are relevant for the analysis of legal reasoning from the point of view of the argumentation theory. Namely, it seems to me that the unveiling of the complex mechanisms of reasoning which those fictions use in applying the norms to the distorted factual reality is of crucial significance for the better understanding also of the other aspects of their functioning within the socio-legal context.

As a theoretical platform for analyzing the phenomenon of jurisprudential fictions, I would suggest a combination of two general ideas developed in the different

orientations of the contemporary argumentation theory: first, the idea of legal justification as the essence of legal argumentation, and second, the idea of strategic maneuvering as an indispensable instrument of legal technique, especially in what is called “difficult cases”. Allow me to briefly comment on each of the above-mentioned.

4.1. Jurisprudential fictions as justificatory devices

The importance of justificatory techniques in legal, and especially in judicial reasoning, is nicely summarized in the formulation that the acceptability of a legal decision is dependent on the quality of its justification (Feteris 1999, p. 1). However, some theoreticians of legal argumentation, as for example, Robert Blanché, are prepared to go even further and to affirm that judicial argumentation is, in its essence, justification. Namely, according to this view, behind the façade of an impartial derivation of legal conclusions from the normative and the factual premises, in the judicial reasoning there is always an effort to justify a certain axiologically impregnated legal standpoint (Blanché 1973, pp. 228–238).

The main point of this insistence to the justificatory nature of legal argumentation is the need to emphasize the fundamentally regressive character of legal reasoning. The qualification “regressive” in this context means that in this type of reasoning the starting points are not the principles from which we progressively derive the consequence, but rather the consequence itself, from which we regress to the principles from which it may be derived (Blanché 1973, p. 12). Thus, in the context of legal reasoning, whilst the deliberation is treated as a progressive procedure in which the judge is seeking a solution for a legal problem, starting from a complex of legal principles, the justification is essentially a regressive procedure, which begins from the decision, that is, from the solution of the problem, and seeks the reasons and arguments which can support it (Blanché 1973, pp. 228-230).

It seems that the existence and the functioning of jurisprudential fictions strongly support the thesis of a fundamentally regressive character of legal argumentation. Namely, the need to use a fiction in the motivation of a judicial decision emerges only when it is necessary to find a way to justify a legal conclusion which, for some reason, does not fit in the existing legal framework, but which has already been estimated by the judge as the most satisfactory solution to the legal issue at hand. However, legal fictions are a type of non-

standard justificatory device because they demand a deeper, riskier and more artificial argumentative maneuver than a search for reasons and arguments, which can simply be extracted from the existing regulation. In fact, the very need for fictional justification of a legal decision is a symptom of the disputable status of its legitimacy in the current legal framework, or an indicator that in the previous process of judicial deliberation which led to that decision, the boundaries of the system, for better or worse, have already been transgressed (for the difference in the justificatory function of "classical" and "new" legal fictions, see Smith 2003).

From the above-mentioned examples it is clear that the need to use jurisprudential fictions arises in situations when no exception to the rule, no alternative interpretation and no ambiguous rule can be invoked by the judge in order to evade the unacceptable result of the application of the relevant legal norm and to justify the desired legal outcome of the case (for instance, sparing the life of a petty thief, granting the legally relevant status of orally concluded, yet realized agreements, etc.). Thus, not being entitled to assume, not openly at least, a legislative role and to change the legal rule which generates the undesired conclusion, the author of the jurisprudential fiction resorts to the modification of the other element on which the syllogistic structure of their reasoning is based – the factual premise.

From an argumentative point of view, the false qualification of facts, their deliberate assimilation in a legal category to which they obviously do not belong, represents a procedure which combines the techniques of reasoning *a contrario* and *a simili* in an idiosyncratic and rather radical argumentative maneuver (for the use of arguments *a contrario* as a technique of justification of judicial decisions, see Canale & Tuzet 2008, and Jansen 2008). Namely, the use of fiction is based on the identification not of similarity, but precisely of the essential difference between the categories to which the technique of assimilation is applied ("grand" and "small" larceny, "oral" and "written agreement", etc.). In fact, the fiction is in demanding an analogical treatment of two legally relevant acts in spite of the explicit recognition of their inequality (Delgado-Ocando, 1974, p. 82).

This analogical treatment of obviously different legal facts, which amounts to the assimilation of some of them in a category other than that they would normally belong to, is the key move which makes it possible for the judge to use the logical

force of the subsumptive pattern of legal reasoning in order to justify his/her decision. For instance, if the rule of law provides that only written agreements are legally valid, and the oral agreement which is the object of the dispute is fictionally assimilated into the category of written agreements, it follows that it is also legally valid and should be protected by the law. To wit, the new, modified factual premise is now suitable for generating the desired conclusion under the general and unchanged normative premise.**[ii]**

4.2. Jurisprudential fictions as instruments of strategic maneuvering

The treatment of judicial fictions as specific justificatory instruments of "last resort", by which the judge attempts to fulfill his/her strategic role – that of legitimatizing a decision which cannot, *stricto sensu*, be justified by the standard means in the existing legal framework – is very close to the conceptual horizon opened up by the theory of "strategic maneuvering" applied in a legal context (van Eemeren & Houtlosser 2005; Feteris 2009).

Legal, and especially judicial argumentation, like any other kind of argumentation, represents a goal-directed and rule-governed activity, with a strongly manifested agonistic aspect. However, one of the peculiarities of judicial argumentation is the fact that the justification and the refutation of legally relevant stances, opinions and decisions is realized within a strictly defined institutional framework, bounded by many restrictions not only of a logical, but also of a legal, substantial, as well as a procedural nature. Moreover, because of the conflicts of values, conceptions and interests in the social context, the judicial decisions are usually the object of numerous controversies and should be capable of withstanding sharp criticism in a dialogically structured (potential or actual) argumentative exchange. That is the reason why the argumentative strategies and instruments used in legal justification, especially in difficult cases, are complex and multi-layered; to wit, they have to represent an optimal plan to justify a particular decision taken as the most adequate and fair solution of the case at hand, in accordance with the strict demands of the legal system, and to defend it against any possible argumentative attack.

The concept of the argumentative maneuver in a legal context comes into play in those challenging situations when the judicial conviction of the fairness and rightness of a particular decision conflicts with the relevant norms applicable to the specific case. In that kind of situation, the judge operates in the (usually, fairly limited) space left for his/her "margin of appreciation", trying to find

argumentative means to fulfill the strategic goal of justification by using the instruments which are placed at his/her disposal by the legal system.

In general, the techniques of interpretation of legal rules (linguistic, genetic, systematic, historical, etc.), which enable to broaden or to restrict their scope by invoking the intention of the legislator, the origin and the evolution of the rule, the nuances of meaning of terms in its formulation, etc., are used as tools in this strategic maneuvering (on this point, besides the above-mentioned Feteris 2009, it could be instructive to see also van Rees 2009 and Ieţcu-Fairclough 2009). Viewed, generally, as an "attempt to reconcile dialectical obligations and rhetorical ambitions" (van Eemeren & Houtlosser 2005, p.1), the strategic maneuvering in the justification of judicial decisions is an indispensable instrument in resolving the tension "between the requirement of legal certainty and the requirement of reasonableness and fairness" (Feteris 2009, p. 95).

This general function of strategic maneuvers used in legal justification is the main reason for suggesting that the phenomenon of legal fictions could also be treated as a specific type of such maneuvering, although comprised in a broader sense than the interpretative maneuvers *stricto sensu*, capable of being adequately accounted for by the pragma-dialectical analytical apparatus (like, for instance, in Feteris 2009). Namely, in the above-mentioned examples of the judicial use of fictions, the refusal to apply (at least, in a straightforward way) the general legal norm to the established facts of the case was inspired by the need to meet the standard of reasonableness and fairness of the decision, while the move of falsely qualifying the facts was intended to integrate the judicial solution into the structure of paradigmatic legal reasoning, as one of the warrants of legal certainty. Nevertheless, the specificity of legal fictions compared to other forms of strategic maneuvering in the legal area lies in the fact that the target of this maneuver is not the rule itself and its possible interpretations, but the very facts of the case which make it possible (or impossible) to subsume it under that particular legal rule. However, this move reveals, simultaneously, the inherently controversial connotations of the notions "maneuver" and "maneuvering", which may sometimes also denote an implicit attempt to undermine or to subvert the legitimate functioning of legal rules, while creating only the impression that they are being consistently observed.

In that way, the use of fictions as strategic means in legal reasoning and argumentation shares the crucial question treated in the contemporary theory of

strategic maneuvering in argumentation: how to establish the difference between the legitimate and the illegitimate use of this technique, between its "sound" and its "derailed" instances (van Eemeren & Houtlosser 2009)? Namely, when it is affirmed that the use of fiction aims to produce a desired legal outcome, the adjective "desired" is burdened by a particularly dangerous form of ambiguity. The effect desired by a corrupted or biased judge, to bear in mind the Benthamian warnings, may be, for example, the protection of particular political, economic or personal interests, the discreditation or elimination of political adversaries, the legitimatizing of an oppressive politics by a (nationally or internationally) dominant class or ideology, etc. Obviously, the fictional distortion of existent reality in order to bring about legal consequences is a pricey move, a move which may serve the search for justice and equity equally well as it may hinder it.

The problem of the criteria in distinguishing the legitimate and the illegitimate use of legal fiction as a technique of justification of judicial decisions, especially in difficult legal cases in which "the legal reasoning falters and reaches out clumsily for help" (Fuller 1967, p. viii), is too complex and too difficult to be resolved by a simple theoretical gesture. On this occasion, I would venture only to make two suggestions in the direction of making preparations for its more elaborate treatment in the future.

First, it seems that the criteria of sound and derailed argumentative use of fictions are not an absolutely homogenous class, but that they could be differentiated according to the legal area to which the case with fictional justification belongs: civil, criminal, constitutional, etc. The reason for this is the fact that in different legal areas there are different articulations of the fundamental legal relationships between the concerned subject and agents, different standards of acceptable methods of proof and justification. For instance, as it is well known, the use of analogical reasoning in criminal law is not allowed, whilst in civil law the norms governing its use are more permissible. Thus, a detailed identification of the existent standards of use of argumentative techniques in each legal area could represent a useful clue to the elaboration of criteria of the acceptable application of the fictional legal devices in it.

Second, if we feel that notwithstanding the differences in the area of application, there should be a more general formulation of the criterion of the legitimate use of legal, or, more precisely, jurisprudential fictions, perhaps we should explore the direction open by the formulations of the "principle of universalizability" (cf.,

for instance, Hare 1963) suitable for the legal context – like, for example, Perelman's "rule of justice" (Perelman & Olbrechs-Tyteca 1983, p. 294), or Alexy's "rules of justification" in the rational practical discourse (Alexy 1989, pp. 202-204). Namely, in all of these examples the underlying idea is that one of the fundamental features of fair application of legal rules is its capacity for universalisation, in the sense that the treatment accorded to one individual in a given legally-relevant situation, should also be accorded to any other individual who is in a similar situation in all relevant aspects. Applied to the problem of jurisprudential fictions, it would mean that if the judge is prepared, in an ideal speech situation, to openly declare the normative choice obfuscated by the fictional means and to plead for its universalisation to the status of precedent for other cases or of a general rule that should be explicitly incorporated in the legal system, then it can be treated as a positive sign (although not as an absolute or clear-cut criterion) of the legitimacy of its previous use. Supposedly, the protection of partial political, economic or ideological interests "covered" by the derailed uses of fictions in judicial reasoning should not be able to pass the hypothetical or the actual test of universalizability.

In fact, in a historical sense, the universalisation, i.e. the extension of a particular judicial solution to other similar cases, was the general effect of the use of some famous legal fictions, including those from our examples, which contributed to the sensibilisation of legal and social authorities to the existing gap between the reality and the norms, and to the overcoming of it by creating new legal rules. In that way, legal fictions, in spite of their controversial nature, or perhaps just because of it, are shown to be, not only in history, but also in the present, a powerful impetus of the conceptual and normative evolution, in the legal, as well as in the philosophical and logical sense of the word.

5. Conclusion

In this paper, an attempt was made to approach the issue of legal and, especially, jurisprudential fictions by using the theoretical and conceptual tools developed within the framework of the contemporary argumentation theory. Two ideas were discussed as particularly suitable in the realization of this goal: the idea of legal justification as a fundamental aspect of legal argumentation and the idea of strategic maneuvering as an indispensable tool of the technique of justification of legal decisions, especially in "difficult" legal cases. From this perspective, legal fictions used in judicial reasoning have been treated as peculiar, non-standard

justificatory devices and instruments of strategic maneuvering. Their main function is related to the attempt to reconcile the desirability of a certain judicial solution seen as the most reasonable and fair decision in the case at hand, with the demands of the existing legal order, especially the demands of legal certainty. Given the possibility of the abuse of fictions as an instrument in legitimatizing the inappropriate usurpation of normative power by judges, particular attention was accorded to the issue of the criteria of their legitimate and illegitimate use, and the potential of universalization of a particular legal fiction was suggested as a possible indicator of the appropriateness of being resorted to in judicial reasoning.

NOTES

i The author wishes to thank the editors and the two anonymous reviewers for their helpful comments on a previous version of this paper.

ii An interesting question, which deserves a more elaborate treatment and more detailed research, is the question if the reasoning mechanisms involved in the creation and utilization of legal fictions can be plausibly accounted for from the point of view of the contemporary theories of defeasible reasoning in law (on the problem of defeasibility in judicial opinion cf. Godden & Walton 2008).

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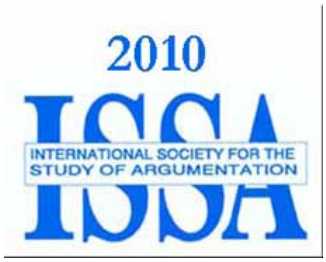
ISSA Proceedings 2010 – Image, Evidence, Argument



1. Introduction

Suppose that visual argument skeptics are correct: there are no visual arguments apart from any associated verbal content. Does it follow, then, that there is no place for images in argumentation theory or informal logic? The answer to this question, I argue, is no – at least in the case of photographic images. Instead, photographic images can fill an evidentiary role in which the image acts as a verifier, corroborator or refuter of some claim within an argument. This result is satisfying in two ways. First, it makes room for images even under the most hostile conceptions of argument for visual argumentation. Second, it forms the basis of an answer to a related question in philosophy of mathematics. In philosophy of mathematics, there is a debate about the role of diagrams in mathematical reasoning. This debate, in some respects, mimics the debate about the use of visual elements in argumentation. I show that the use of images as verifiers in argumentative contexts can inform an answer about the use of some diagrams in mathematical contexts. Diagrams can verify, corroborate or refute claims in mathematical arguments. Hence, though this doesn't mean that diagrams are proofs, it means that diagrams can play an evidentiary role in mathematical contexts.

As a preamble to this discussion, I describe and label several positions one can take as regards visual evidence. On one end of the spectrum one finds the proponent of visual arguments. This is the position of Leo Groarke (Groarke 1996, Groarke 2002) and David Birdsell (Birdsell and Groarke, 1996, Birdsell and Groarke 2007). The proponent takes visual arguments to be no less legitimately

arguments than any verbal arguments. For example, Groarke offers a poster from the University of Amsterdam as a putative visual argument (Groarke 1996, p. 112). Regarding the argumentative status of the poster, Groarke is unequivocal. He writes, “From the point of view of logic, the poster is something more than a statement, for it visually makes the point that the University of Amsterdam’s chief adminstrators are all men, to back the intended claim that the university needs more women.” (Groarke 1996, p. 111) A proponent of visual argument, then, takes the resources needed to analyze visual arguments to include logic broadly construed. Groarke doesn’t limit the analysis and evaluation of visual argumentation to just the rhetorical powers of images; though he doesn’t neglect these either. Instead, the proponent as I envision him or her, thinks that argumentation includes visual elements in the most robust forms possible. Therefore, Argumentation Theory and Informal Logic ought to expand to account for these visual elements explicitly.

Before describing some middle ground in this spectrum, I consider the other end: the visual argument skeptics. The skeptic denies the possibility or actuality of visual arguments. David Fleming (Fleming 1996) and Ralph Johnson (Johnson 2003) are examples of visual argument skeptics. The skeptic needn’t deny the rhetorical power of images, but the skeptic does deny that the images are arguments properly so called. Johnson, for example, thinks that many of the items claimed by proponents to be visual arguments will, under scrutiny, turn out not to be arguments at all or will not be essentially visual insofar as the argumentative workload will be handled by associated verbal elements (Johnson 2003, pp.10-11). Both Johnson and Fleming offer accounts of argument that may by fiat rule out visual arguments. “An argument is a type of discourse or text – the distillate of the practice of argumentation – in which the arguer seeks to persuade the Other(s) of the truth of a thesis by producing reasons that support it. In addition to this illative core, an argument possesses a dialectical tier in which the arguer discharges his dialectical obligations.” (Johnson 2000, p. 168) “To sum up, argument is reasoning towards a debatable conclusion. It is a human act conducted in two parts (claim and support) and with awareness of two sides (the claim allows for and even invites opposition).” (Fleming 1996, p. 18) Thus, Fleming argues that there is no way, on his conception of argument, for visual arguments to be anything more than “support for a linguistic claim.” (Fleming 1996, p. 19) But these visual elements are not arguments.

Between these extremes there are a variety of positions that one might take. One position is that of Anthony Blair (Blair 2004). Blair's position as regards visual arguments seems to be reductionist, and hence, I would place it closer to the skeptic than the proponent. The logical content of visual arguments is propositional; hence, the logical analysis of visual arguments requires finding the associated verbal content of the putative visual argument. The rhetorical elements of visual arguments are, for Blair, not reducible to the verbal content (Blair 2004, p. 59). However, these elements pertain not to logic, i.e., to logical support, but to (mere) persuasive communication. The appraisal of visual arguments, then, reduces to two tasks. First, one must identify and interpret the associated verbal content. Second, one must determine the rhetorical strength of the visual appeal. This appraisal of visual arguments, then, does not determine the logical strength of any of the inferences, or if it does, this appraisal will fail to capture the unique rhetorical influences of the visual elements.

There are surely other positions between skeptics and proponents. Yet, for present purposes, this classification is sufficient. The skeptics deny that visual arguments are arguments proper, while the proponents accept that visual arguments are simply arguments. Between these two views, one might take visual arguments to be visual attempts at persuasion without allowing visual arguments to have subtle logical forms. But what is important for my purpose is that on the skeptical side of the spectrum, the objections to visual arguments are that they are either wholly rhetorical or, if there is any logical content, it is overly simple and identifiable with some associated verbal content. I want to take this claim – that visual arguments are either wholly rhetorical or have logical content identified with or reducible to associated verbal content – seriously without also thereby marginalizing visual argumentation.

To be clear, I am not attempting to show that visual arguments are arguments in the strictest sense. Instead, I think there is a place for the consideration of the visual within argument appraisal even granting the skeptics main premises. So, what are the skeptic's worries? Fleming worries that unadorned images lack the necessary properties of arguments (Fleming 1995, p. 15). A picture can function as evidence, but as such is not thereby a component of an argument. Instead, the image is outside of the argument. To be a part of the argument, for Fleming, the image must be capable of asserting some claim. And, apparently, evidence isn't assertion.

It is tempting to take Fleming's criticism of visual arguments as resting on an untoward distinction: pure versus mixed visual arguments. Let a pure visual argument be a putative argument that contains only visual elements essentially, i.e., it completely lacks verbal elements. A mixed visual argument, then, would be one that contains both visual and verbal elements essentially. Fleming's criticism, then, would apply only to pure visual arguments. However, it is unclear what sense to give to "essentially" in this construction. One might take it to mean that an argument is essentially visual if and only if some visual element contains no associated verbal content. Taken this way, visual arguments are probably ruled out by fiat. This suggests that a better interpretation of visual arguments regards the mode of presentation. An argument is visual if it presents some element of an argument visually. In this way, the distinction is dissolved. It isn't as if the proponents of visual argument are attempting to make it the case that the appraisal of visual arguments concerns ineffable and wholly visual content devoid of associated verbal elements. Instead, the proponents think that there are reasons to take the interpretation of visual elements as a yet under researched mode of argumentation. It is worth noting that all of the purported examples of visual argument given by Groarke contain verbal elements explicitly. Indeed, taken in this way, Fleming's criticism is straw. None of the proponents seem to take images as sufficient for arguments. Instead, images are components of arguments.

Still, Fleming's complaint is that images don't bear the right kind of relationships to verbal entities to be considered even a part of arguments. And this is where one can start to make room for the visual. Fleming himself goes part of the way in this regard. "So, if the visual cannot function as both claim and support (unless we make the distinction between them meaningless), and if it cannot, without language, be a claim, we are left with only one possibility: the visual can serve as support for a linguistic claim." (Fleming 1996, p. 19) He goes on to focus on the rhetorical aspects of images. But for present purposes, we are left with the following: why isn't the claim that the visual can serve as support for a linguistic claim enough to make room for the visual in argumentation. I think that it is. To see this, I next consider a scientific use of photographs.

2. Visual Evidence in Science

The last scientifically accepted sighting of an Ivory Billed Woodpecker (IBWO) occurred in Louisiana in 1944 by Don Eckelberry. Since then, there have been

numerous unsubstantiated sightings, including several apparent photographs. Sadly, by most accounts, the IBWO has become extinct. Thus it was a great surprise to read the title of a paper in *Science*, "Ivory Billed Woodpecker (campephilus principalis) Persists in Continental North America," (Fitzpatrick, et al 2005, p. 1460). In the article, the claim that the IBWO persists was (mostly) supported by the analysis of a short, blurry video. Since visual evidence plays such an important role in this scientific argument, it makes a good case study for the use of visual elements in (some) scientific arguments.

The IBWO is a very large woodpecker up to 20 inches long with a wingspan of up to 31 inches. Its appearance is similar to another woodpecker that has not suffered the same fate. A pileated woodpecker (PIWO) can be up to 18 inches long with a wingspan of up to 25 inches. Both species are mostly black with various white and, in the case of males of both species, red plumage. The differences, though slight, are important. The trailing feathers on the wings of the IBWO are white while these feathers are black on a PIWO. The back of an IBWO has a white segment, while the back of a PIWO is black, etc.

The background for the argument is explained by the authors of this paper thusly. "At 15:42 Central Daylight Time on 25 April 2004, M. D. Luneau secured a brief but crucial video of a very large woodpecker perched on the trunk of a water tupelo (*Nyssa aquatica*), then fleeing from the approaching canoe. The woodpecker remains in the video frame for a total of 4 [seconds] as it flies rapidly away. Even at its closest point, the woodpecker occupies only a small fraction of the video. Its images are blurred and pixilated owing to rapid motion, slow shutter speed, video interlacing artifacts, and the bird's distance beyond the video camera's focal plane. Despite these imperfections, crucial field marks are evidence both on the original and on deinterlaced and magnified video fields. At least five diagnostic features allow us to identify the subject as an ivory-billed woodpecker." (Fitspatrick et al. 2005, p. 1460) Aside from the technical term, "deinterlaced," the setup is straightforward. A video frame is typically composed of two separate images that are interlaced to make up the image that we view. This interlacing can be problematic when someone wants to view a single frame of video tape. The two images are taken at fractionally different times and can therefore introduce unnecessary noise into the image. These frames can be deinterlaced by software. The deinterlaced image will be clearer than its interlaced counterpart. We are in a position, now, to analyze this argument. In its

roughest form, the argument accumulates evidence in favor of the sub-conclusion that the subject of the video is an IBWO. From there we have, perhaps, an argument from sign (cf. Walton 2008, p.10) for the main conclusion that the IBWO persists.

The accumulation argument contains, at the very least, the five diagnostic features visible in the video. These include: the size of the bird, the ratio of white to black feathers at rest, the color of the feathers on the trailing edge of the bird as it flies away, the pattern of white feathers on the dorsum (back) of the bird as it flies away, and the pattern of white feathers on the bird as it is perched on a tree. Here are two possible reconstructions of this argument using the following numbered premises and conclusion. I give two reconstruction because I don't want to take a stand as to the proper reconstruction of an accumulation argument (i.e., whether the premises are independent or linked in some less-than-logical sense). (1) The bird on the video is too large to be a PIWO but the right size to be an IBWO. (2) The ratio of white to black feathers on the wings of the bird at rest are inconsistent with a PIWO but consistent with an IBWO. (3) The pattern of feathers on the back of the bird as it flies are inconsistent with an PIWO but consistent with an IBWO. (4) The color of the feathers on the trailing edge of the bird's wings are inconsistent with a PIWO but consistent with an IBWO. (5) The pattern of white feathers on the back of the perched bird are inconsistent with a PIWO but consistent with an IBWO. Hence, (C), if the bird on the video is a woodpecker, then it is an IBWO rather than a PIWO. (See Figures 1 and 2)

Figures 1 and 2

It is important to note that as reconstructed, the images don't (seem to) play any role whatsoever in the argument. However, to evaluate the argument requires examining the video images. To take just one example: how do we know whether the argument from (3) to (C) is legitimate? There are at two levels of appraisal here. First, there is the evaluation of the support that (3) if true provides for (C). Second, there is the evaluation of the truth, acceptability or plausibility of (3). The image works in this second place. That is, if you want to know whether it is true that the pattern of black and white feathers on the back of the bird as it flies are inconsistent with a PIWO but consistent with an IBWO you have to look at the

image. The image may verify or refute this claim, supposing it is clear enough to distinguish the relevant features. The other premises are also verified, refuted or corroborated, to the extent that they can be, by the associated images. I think Fleming is correct that this connection is something different from assertion. It would, perhaps, be a mistake to reconstruct the argument from (3) to (C) along the following lines (see Figure 3).

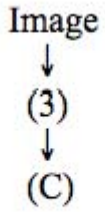


Figure 3

There are many issues for such a reconstruction. For example, how do we evaluate the strength of the inference from the image to (3)? Moreover, this reconstruction invites a bit more detail. The image in this reconstruction is probably operating within the context of a more subtle argument regarding the patterns of feathers on the two types of woodpeckers. Hence, one would expect there to be more detail about the patterns of feathers. Supposing that such a reconstruction were possible, it would likely be covered by some general scheme, say, argument from photographic evidence. Then, like an argument from sign (Walton 2008, p.10), we would expect a canonical form as well as a series of critical questions that allow for a standard appraisal of this argument form. Still, I don't see how the picture would fit into the argument any better than with a simple exhortation, "see!" At which point the arguer invites the recipient of the argument to see for himself or herself the visual evidence. Hence, it is probably better keep the evidential relation separate.

This account of visual evidence does not carry over to all so-called visual arguments. For example, it is clear that editorial cartoons don't appeal to visual elements as verifiers of claims. So, this result is limited to cases of visual evidence such as photos, videos and x-rays.

3. Visual Evidence in Legal Settings

Though not every visual element can be thought of as a verifier or refuter, we can see that this account of visual evidence as verification/refutation makes sense outside of science. In law, for example, photographs are regularly used as

evidence. In an odd legal case from California (People v. Doggett, 1948), a couple was convicted of a crime. This isn't by itself unusual. What is unusual is that the only evidence offered at the trial was a photograph. "In that case a husband and wife were convicted of a violation of section 288a of the California Penal Code, which makes criminal all acts of oral sexual perversion. The only evidence introduced at the trial to support a conviction was a photograph of the husband and wife in the commission of the alleged act. Supporting witnesses testified only as to the probable authenticity of the photographs without having perceived the commission of the alleged act." (Mouser and Philbin 1957, p. 311) There are two things to question about this use of photographs. First, what property of photographs allow them to work as evidence? Second, what are the limitations for such uses? Regarding the first question, it is clear that photographs offer a visual representation of some objects. Moreover, although photos can be better or worse regarding focus, depth of field and the like, the representation is thought to be more or less accurate regarding the things represented, their spatial relations etc. Thus, by examining a photo one is presumed to have perceived some of the properties and relations of the things represented in the photo. As a more mundane example, consider the National Football League's use of instant replay as a check on the calls of the referees. When a team challenges a call, the referee checks the instant replay. In cases where the referee has "indisputable visual evidence" to overturn the call, the referee changes the call. If videotape systematically distorted the properties and relations of the objects on the videotape to such a degree that the referee could not perceive the apparent properties and relations, there would be no reason to use videotape as a check. For the purposes of reviewing calls, videotape represents the properties and relations of the objects with enough accuracy to aid the referee in reviewing calls.

Something like this must be happening with photos (and videotape) in courtrooms as well. If photos were continually distorting the properties and relations of the objects represented, then the perception of the objects would not be accurate. And if the perception weren't accurate, the use of photos would be deemed unreliable as a method for establishing facts in court. In the case of the Doggetts, the photo was apparently sufficiently compelling to warrant conviction.

Before moving on to the limits of the use of photos in court cases, I want to reconsider the actual use of photos to establish, verify or corroborate facts. One might be tempted to think that in the case of the Doggetts, there was a rather

straightforward warrant for conclusion: the photo clearly showed the Doggetts engaged in an illicit act; hence, they were engaged in that act. The supporting witnesses didn't testify regarding the act, but only to the authenticity of the photo. So, it was the photo, along with the authentication that led to the conviction.

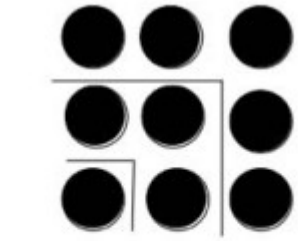
The problem with this account, though, is that we can't reconstruct the case as a traditional argument. That is, in reconstructing the prosecution's case, the photo verifies the claim that the Doggetts engaged in the illicit act without also being a premise for that claim. Here's a possible reconstruction of the argument. (1) If the Doggetts engaged in the illicit act, then they should be convicted. (2) The Doggetts engaged in the illicit act. So, (3) the Doggetts should be convicted. The logic of the case is modus ponens. Yet, there is no room for the photo in the logic of the argument. But, we must not think that the only distinction is between logic and rhetoric here. In this case, the rhetorical force of the photo is unimportant. Instead, what matters is whether premise (2) is true. The photo doesn't support the claim logically, as logical support is about the flow of truth values or truth-like values from a reason or set of reasons to a conclusion. Instead, the photo merely verifies truth without offering logical support. One doesn't infer the truth of the claim from the photo, one perceives it. I don't want to enter a discussion of the theory-ladenness of perception. Instead, I distinguish the process of inferring, in which a claim garners support conditionally upon the acceptance of some other claims, from the process of perception, whereby one apprehends the truth or falsity of a claim by visual comparison. The statement verified is different from the configuration of objects that constitute the subject of the statement.

The use of a photo in legal settings always has an associated verbal argument. Moreover, the photo's role in the argument will be as claimed above: corroboration, verification or refutation. The strength of this evidence will depend on many factors: clarity of the photo, for example. But it is the argumentation that gets logical criticism. The photo gets a different type of criticism altogether.

4. Visual Mathematical Evidence

Turning now to mathematical examples, there are many mathematical results that are justified by non-deductive means. James Franklin (Franklin 1987) gives a litany of non-deductive methods. But, diagrammatic reasoning isn't one of them. The reason, I think, is that Franklin is interested in *logical* rather than *evidential* methods – even when the logic is non-deductive or probabilistic. I don't think

there is a general logic for figurative reasoning, though there is much interesting logical work on certain diagrammatic systems. Some of this work derives from Ken Manders's (Manders 2008) account of Euclidean Diagrams. I don't want to discourage this kind of research. Yet, I am unconvinced that every case of figurative reasoning will be, much less should be, formalized. Instead, I want to consider a different possibility. Figurative proofs or arguments are associated with (perhaps tacit) verbal arguments. In such cases, the figurative elements operate much in the same way as photographs do in the law and in science: the figures verify, corroborate or refute specific claims. The claims, as verbal elements, are used in the actual reasoning. But the figurative elements are visual evidence for the associated claims rather than stand-alone arguments or proofs. Consider Figure 4 below.



$1+3+5+\ldots+(2n-1)=n^2$

Figure 4

This is supposed to be a proof of the claim $1 + 3 + 5 + \ldots + (2n - 1) = n^2$. The argument that it leads to the conclusion is this. (1) $1 = 1^2$. (2) $1 + 3 = 2^2$. (3) $1 + 3 + 5 = 3^2$. (4) This can be continued for every number, n. So, (5) $1 + 3 + 5 + \ldots + (2n - 1) = n^2$. Claims 1 – 3 are verified by the diagram. Claim 4 is difficult to see in the given configuration; but one could say that it is an induction based on claims (1 – 3). So, (4) follows, though only inductively.

As a different case, consider an oft cited *proof* of the Pythagoren Theorem (Figure 5). I must confess that when I first saw this collection of diagrams, I did not see it as in any way connected to the Pythagorean Theorem.

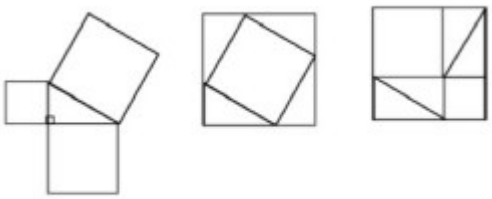


Figure 5

Since that first experience, though, I have had the opportunity to discuss this *proof* with my daughter who was learning geometry in high school. As an experiment, I gave her the set of figures and asked what she thought. Like my first experience, she didn't know what to make of the collection. I then gave her the collections of figures labeled Figure 6 below. The arrows represented lines of dependency. In this way, I gave her a way to *read* the figures. Moreover, this collection also contains the conclusion explicitly. Whether she understood the collection clearly, I cannot say. But I can say that she read through it with delight. More importantly, though, she had questions. She wanted to know what lines were *a, b,* and *c* respectively. She wanted to know whether the common notions from her geometry class were common to this collection, etc. From her questions, I constructed the following argument. Let the original triangle be a right triangle; label it T_0. Label the hypotenuse *c*. Label the vertical side *a*, and the horizontal side *b*. Let the squares built on the sides of *a, b*, and *c* be a^2, b^2 and c^2, respectively. Construct triangles T_{1-4} congruent to T_0. This was the setup of the argument. All of these claims are stipulated both as claims and as elements of the collection of figures. Now, manipulate the figure such that you construct a square out of a^2 and b^2 such that the missing pieces are filled in by the Triangles T'_{1-4}. This is stipulated. Next, construct a square using c^2 and the triangles T_{1-4}. This too is stipulated. Now, T_{1-4} is equivalent to T'_{1-4}. This is a basic equivalency. Notice that the sides of the two squares are $(a + b)$ units long. This is true of both cases. You can see it in the figure. Hence, the figure verifies or corroborates this claim. Finally, if you subtract the four triangles from each square, the remaining pieces are equivalent. On one side $a^2 + b^2$ remains, on the other it is c^2: as verified by the diagram. To generalize the result, one needs a further claim: we could redo these manipulations on any right triangle. From this, it follows that the result holds generally. This isn't a proof because the claim regarding the reconstruction of the

elements on different right triangles isn't justified by the collection of figures. Instead, the original construction may provide evidence in the form of know-how for the reconstruction on a different right triangle. And if this is correct, then the argument could be reconstructed as follows. (1) Squares constructed out of the sum of the squares of the two sides of a right triangle and four triangles equivalent to the original triangle and the square constructed on the hypotenuse of the right triangle and four triangles equivalent to the original triangle are equivalent. (2) Since the constructed squares are equivalent, subtracting the four triangles from each square will result in equivalent areas remaining. (3) The result of such subtraction leaves $(a^2 + b^2)$ and c^2 respectively. Hence, (4) for this particular triangle $(a^2 + b^2) = c^2$. (5) This construction can be reiterated on other right triangles. Hence, (6) $(a^2 + b^2) = c^2$.

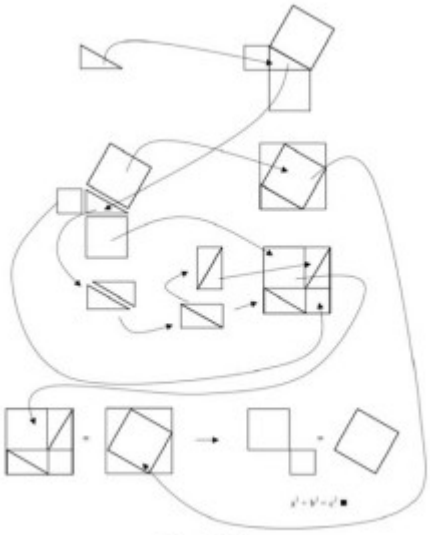


Figure 6

This is a general method for explaining putative figurative proofs: reconstruct them as arguments for which the figures function as evidence for (some of the) claims in the argument. This has the advantage that one need not construct a logic that allows for figurative elements within the syntax of well-formed formulae. Indeed, the logic of figurative arguments will be the logic of any other natural language arguments. One may worry that the reconstruction of the figurative *proofs* as verbal arguments is not faithful to the actual practice involving such *proofs*. To the contrary, if you have tried to teach the proofs in Nelsen's book (Nelson 1993) or the diagrammatic examples in Brown's essay or his book (Brown 1999) to undergraduates, you probably ended up reconstructing the *proofs* along the lines I suggest above.

There is one caveat, however. Some of the *visual proofs* are immediate. That is, they aren't mediated by intermediate steps. Once the figure is properly prepared, the conclusion is verified by looking at the diagram and not by reasoning through intermediate steps. This, however, does not undermine the method. Rather, this simply points to the actual use of the diagram. A diagram or figure verifies a claim or claims. In the case of an immediate proof, it verifies the conclusion rather than some reason or premise.

Finally, I want to consider some objections that have been levied against diagrammatic reasoning to see whether they undermine the account I prefer. The objections are: (1) The resulting arguments aren't proofs as the resulting arguments are defeasible. And, (2) The visual elements might be seriously misleading. Regarding (1), I simply accept the criticism. However, it doesn't undermine my account because I grant that these aren't proofs. Instead, I am interested in a wider variety of mathematical reasoning. The objection must surely be answered by anyone committed to the notion that reasoning that makes essential appeal to visual elements are proofs, that is not the view I defend and hence the objection misses my account.

Regarding the possibility of misleading diagrams, I can think of two sources. On the one hand, a diagram might be seriously misleading if it is poorly drawn. I liken such cases to shoddy photographs in legal or scientific contexts. I don't find this type of difficulty unduly worrisome. For, insofar as the figures merely verify, corroborate or refute some claim that is used in an associated argument, the failure to verify in a particular case does not undermine the method. Rather, it seems like this possibility makes the reasoning that results from figurative elements much more like argumentation in other realms. Every argument is assessed on two dimensions: form and content. The poorly drawn figures affect the content of the resulting arguments but not the form.

Alternatively, there might be something conceptually wrong with diagrams generally. I think this is hinted at (though not in terms of being a problem) in Brown's example of a "seriously misleading" figurative proof (Brown 1997, p. 178) (See Figure 7).

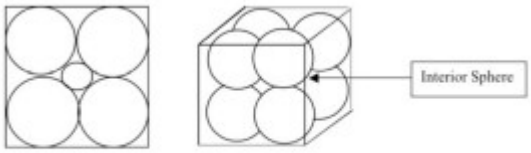


Figure 7

He begins by considering a figure constructed from four circles in a particular configuration. One can see that the configuration has the property that a fifth circle constructed so that it touches each of the original circles would itself be contained by a circumscribing square. He then considers the same result extended to three dimensions. He claims that, "Reflecting on these pictures, it would be perfectly reasonable to jump to the 'obvious' conclusion that this holds in higher dimensions." (Brown 1997, p. 178) But the result fails in higher dimensions. I've argued elsewhere (Dove 2002) that this isn't a failure of the diagram. Rather, it is a failure of an implicit premise in the proof: what holds in two and three dimension will hold at higher dimensions. This is surely false. So, it wasn't the pictures that mislead.

5. Conclusion

I have argued that the use of diagrams and figures in mathematics can sometimes be explained by analogy with the use of photographs in science and the law. The figurative elements verify, corroborate or refute claims in the associated arguments. Since the associated arguments are *in the vernacular*, as opposed to within some language that allows figurative elements to be proper components of sentences, the logic of these arguments should be mundane. The figures are used in the same way that images are used in other realms, e.g., photos in the law and in science. Hence, the use is not special and does not require one to treat these elements specially. As such, this makes more sense of the actual practice of mathematics than accounts that require occult faculties or specialized vocabularies. I find this result doubly satisfying. On the one hand, it makes room for some visual elements within argumentation theory and informal logic. Of course, this is only part of the story regarding arguments. As stated above, evidentiary uses of visual elements cannot explain the use of images in editorial cartoons, commercials and the like. On the other hand, the account of visual evidence as verifier etc., when applied to the case of diagrams in mathematics, solves a long-standing problem for mathematical practice. Namely, if diagrams aren't a legitimate component of mathematical reasoning, why are so many mathematical texts littered with them? The answer, of course, is that they are a

legitimate part of the reasoning. Their role, however, isn't one of premise, but of evidence.

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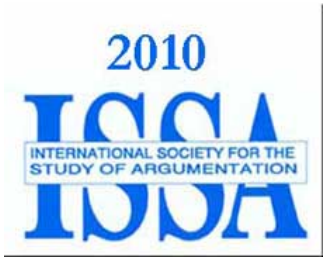
ISSA Proceedings 2010 – Didactical Arguments And Mathematical Proofs



There seems to be a mismatch between the classification of arguments given by Aristotle at the beginning of the *Sophistical Refutations* and some influential contemporary theories of argument for they do not pay much attention to a whole kind of Aristotelian arguments, namely didactical arguments.

An explanation could be that didactical arguments are implicitly included in these theories. But if you grant that didactical arguments differ from dialectical arguments in many respects and if you consider that for these theories the very notion of argument is dialectical, this interpretation of the demise of didactical arguments is not very plausible unless it results from equivocation on the word *"dialectical"*.
After a review of Aristotle's classification we shall examine these theories to see if they are well suited to accommodate the kind of argument Aristotle called didactical.

1. Aristotle's four arguments
In the *Sophistical Refutations* (II, 165a-b) Aristotle claims there are four kinds of διαλέγεσθαι λογων, an expression generally translated by "argument (or reasoning) involved in a discussion". This expression can also be interpreted simply as "dialogue" or "dialectic", taken in the broad sense of "talking together". Although Aristotle neither uses the word "syllogism" nor "enthymeme" it seems reasonable to agree with the translation using the word "argument" since the Philosopher stresses that these discourses have premises. And it is these premises

which make the main difference between the four kinds of argument. In short:
Dialectical arguments are rooted in an endoxa, a common opinion.
Critical arguments start from premises accepted by the answerer but also granted by the arguer for his discourse aims at "showing that he [the arguer] knows".
Eristic arguments reason from premises that appear to be generally accepted but are not so.

Finally, didactical arguments do not reason from the opinions of the answerer but from "principles appropriate to each μαθηματος". Before commenting on this last word, it should be noted that, a few lines further, Aristotle says that dialectical, critical and eristic arguments are studied in specific books and "demonstrative" ones in the *Analytics*. Therefore, he holds didactical arguments to be demonstrative.

The word μαθημα is usually translated by "branch of knowledge" or "discipline" but it also means "lecture" or "lesson", two notions often related to an educational context. It is also close to μαθηματιcος which means "someone who studies" or "relative to a field of knowledge" and, of course, it is also germane to μαθηματιcα, usually translated by "mathematics".

Although it is demonstrative we should avoid to identify a didactical argument with what we now call a mathematical proof for the very notions of mathematics and science have changed since Aristotle. Remember, for instance, that he held sciences like optics, astronomy and music (harmony) to belong to the mathematical science even if pertaining to "more physical" parts of it (*Physics*, II, 2 194a). For Aristotle, what makes something "mathematical" is rather the way you consider it, namely the properties you drop in the process of abstraction and the principles you take into account, some of them being proper and some others not proper to the said science (*Posterior Analytics*, I, 10, 76a, 35-40). This is why one should take didactical argument to mean deductive argument based on the principles of a field of knowledge, of a discipline. It is "mathematical" in the broad sense of "systematic".

That the four types of arguments are "open to discussion" does not entail that they are always debatable. For Aristotle's definition of science requires that the conclusion of the arguments which are scientific to follow necessarily from their premises. And if these premises belong to the principles of a science they must be "true, primary, immediate, better known than, prior to, and causative of the

conclusion" (*Posterior Analytics*, I, 2, 71b 20). Since their principles cannot be demonstrated but only grasped by induction – a specific act of abstraction – and their conclusion are necessary, Aristotelian scientific arguments are not "open to discussion" even if Aristotle grants that a superficial debate is always possible (*Posterior Analytics,* I, 10, 76b 25-30). A discussion may only occur in the case of postulates, namely *demonstrable* propositions supposed by the master but not by student.

2. What is left today?

I have just called to Aristotle's categorization to stress a contrast with some contemporary views about what counts as an argument. Today, dialectical, critical and eristic argumentations are well alive and acknowledged. The three of them are even key notions in distinct fields of investigation. But what happened to didactical arguments? They seem to have disappeared. How come that several of the prominent contemporary theories of argumentation do not consider them as specific arguments or even as genuine arguments?

This could be a consequence of a fundamental theoretical orientation. The revival of argumentation studies began around the mid-twentieth century with Perelman's and Toulmin's reactions against the infatuation of philosophy with formal logic. Perelman made an extra step by linking closely together the notions of science, rationality, demonstration, proof, certainty, logic and mathematics, a move which allowed him to build his empire of rhetoric against the world of proof, demonstration and certainty, including natural sciences and, first and foremost, mathematics. For instance, according to him, Descartes "considered as rational only demonstrations" (starting from clear ideas) and since the nineteenth century "under the influence of logicians-mathematicians, logic has been limited to formal logic, namely the study of the means of proof used in mathematical sciences" (Perelman 1958, p. 2-3).

Inspired or not by Perelman, many streams of contemporary argumentation studies have rooted their concept of argument into a broad notion of dialectic. And some scholars take for granted that proofs and arguments are different things: a proof is not a kind of argument or a part of an argument; it is no argument at all. Hence the view that argumentation is foreign to hard sciences and, especially, to mathematical demonstration.

This view, making an oxymoron of the notion of scientific argument has been challenged from various areas since a few decades (Lakatos, 1976; Finnochiaro

1980; Gross 1990) and the exclusion of mathematics from the kingdom of argumentation has been seriously challenged recently (Rav 1999; Dove 2007, 2009; Aberdein 2005, 2009). My own call to a reappraisal of Aristotelian didactical arguments wants to be another contribution to the refutation of the dogma of a sharp distinction between scientific demonstration and argumentation.

A pragmatic approach is certainly required by any theory of argumentation based on the way people actually argue. But a systematic call to dialectic in the very definition of an argument results in an unfortunate narrowing of the field of study for it leaves out some argumentative forms, especially didactical arguments. The point is that it is possible to be an argument without being dialectical unless the very notion of dialectic is made so loose that it accommodates any argument. According to me, the fading of didactical arguments comes from a soft imperialism of dialectic.

What is meant by "dialectic"? As many old and tired words it has become vague and covers a range of different notions after an already equivocal career in the ancient times. In Aristotle, for instance, Wolf (2010, p 25-33) distinguishes three different meanings of "dialectic". Its broadest sense is "discussion" or "conversation": we have seen that the four kinds of arguments, including dialectical and didactical arguments, can be said dialectical in this sense. A second meaning is more specific since it refers to a regulated dialogue, typically between two participants. Paradigmatic examples are the dialectical debates at the core of Plato's dialogues or Aristotle's *Topica*. Finally, the narrowest definition is found in the *Sophistical Refutations*: "Dialectical arguments are those that reason from premises generally accepted, to the contradictory of a given thesis". Dialectic is here based on the endoxa and you can notice that this definition does not contain a term referring to an arguer or an opponent.

Nowadays, dialectical argumentation is usually not identified by the status of its premises but rather by its pragmatic goal, namely arguing *against* a thesis. Refutation, opposition or, at least, resistance are key notions in the contemporary understanding of dialectical argumentation which comes very close to controversy.
Many contemporary theories include a dialectical requirement in the very definition of an argument: if it does not go against the view of an explicit opponent, at least it supports a view against alternatives that could be held by

opponents. I shall use the expression “virtual dialectic” to qualify a dialectical opposition which is only potential, that is which does not identify an actual opponent. From a logical point of view the conclusion of any argument opposes at least its negation and this makes any argument virtually dialectical. Hence, any theory accepting virtual dialectic as a genuine kind of dialectic can claim to be dialectical. This broadening of the notion of dialectic provides a concept wide enough to cover the whole field of argumentation: since not all arguments are dialectical in a narrow sense, dialectic has to become virtual to accommodate any argument. But this broadening does not cancel the fact that didactical arguments belong to a field of knowledge where they are viewed as deductive and do not aim at a refutation. Their dialectical use is only derivative.

3. Dialectic accommodated

Pragma-dialectics claims that argumentation aims at the resolution of a difference of opinion by rational and critical means (Van Eemeren & Grootendorst, 2004). The basic disagreement may not be an open opposition: pragma-dialectics allows being an opponent without holding the contrary view. Sometimes, you argue with people who do not deny your position but only doubt. According to pragma-dialectics, such a situation can be qualified as dialectical. But it is not Aristotelian dialectic if the skeptic does not aim at a refutation of the proponent’s thesis but only waits for convincing evidence. So, you can grant to pragma-dialectics that a difference of opinion does not always amount to a genuine divergence for some doubts are challenges and some are not. However, a different opinion *can* be looked upon as a kind of opposition, just like resistance or inertia can be interpreted as a form of opposition. But when your interlocutor’s doubt does not challenge the rationality of your position, you do not argue against an active opponent but against someone who hesitates between several opinions. Ignorance too can be seen as a kind of opposition even if in some didactical contexts you do not argue with people who have a different opinion but with people who have no opinion at all. In such a case, as in the case of a non challenging doubt, the opposition is only potential. Pragma-dialectics will make a virtual dialectic out of a didactical situation whose specificity is not acknowledged since the interlocutor does not assume a critical position.

In *Manifest Rationality* Ralph Johnson holds that an argument has two sides, two tiers. One is the illative core, the fact that an argument is made of reasons supporting a thesis. And since this is not enough to account for the practice of

argumentation, a dialectical tier is required. But this dialectical component does not imply an actual opposition between the arguers. Johnson writes: “that there is an argument, in the first place means that the conclusion is at least *potentially* controversial” (Johnson 2000, p. 206). Here again argumentation is made dialectic by means of a virtual dialectic. And it is the dialectical tier which makes a major difference between a mathematical proof and an argument for “No mathematical proof has or needs to have a dialectical tier” (Johnson 2000, p. 232). But is it really sufficient to support the claim that a proof is not an argument? Can’t a demonstration be “at least potentially controversial”? Some of them have been notoriously controversial, at least in their early days.

Johnson adds an interesting epistemic comment about the relationship between proof, argument and epistemic level. “The proof that there is no greatest prime number is conclusive, meaning that anyone *who knows anything about such matters***[i]** sees that the conclusion must be true for the reasons given” (Johnson 2000, p 232). In some way, this is certainly true. But on the one hand Johnson’s view also suggests that in mathematics you would argue only with someone who does not stand on a sufficient epistemic footing and, on the other hand, that opposition is not possible between peers because all are convinced by the proof. This last idea of a necessary agreement between educated people reminds us Aristotle’s thesis that scientific arguments are not open to discussion. But what happens with someone who only knows some things, not any thing, in the mathematical field and feels concerned by the question of a greatest prime number?

A dialectical treatment may not be possible here for, taken narrowly, dialectical argumentation presupposes a partial epistemic equality or symmetry between the arguers since it has to rely on common premises that may not be shared by anybody. (Remember Aristotle’s formula about them: “they commend themselves to all or the majority or to the wise – that is, to all of the wise or to the majority or to the most famous and distinguished of them.” (*Topica*, I, 1, 100, b 20)). So, what rational solution is left when you can’t find common premises but you still want to argue that there is no greatest prime number? The authoritative use of didactical arguments which requires granting the truth of the proof premises. In some way, this is a means to make them common and, therefore, to reduce didactical argumentation to dialectic. But it also eliminates the specific cognitive context of didactical argumentation.

Not all reasoned dialogical forms at the core of Douglas Walton's conception of argumentation presuppose epistemic symmetry. According to him, informal logic brought a major contribution to the study of arguments by replacing them in the context of their utterance and he holds this context to be essentially conversational. He acknowledges a debt to Hamblin's notion of a dialectical system understood as "regulated dialogue" (Hamblin 1970, p. 232), that is several participants "speaking in turn in accordance with a set of rules or conventions" (Hamblin 1970, p. 255). But are turns of speech essential to argumentation? The Aristotelian notion of a didactical argument has no such requirement: it may happen in a situation deprived of any turn of speech and so, it is only broadly dialectical. The character Aristotle calls the "answerer" may keep silent and even anonym during all the time of the transaction. This is not unusual: it is an ideal classroom situation, especially during a mathematical demonstration.

This quasi anonymity is even typical of didactical argumentation for, leaving aside eristic arguments, it is not possible with the other Aristotelian kinds of arguments for they have to be adjusted to the other party. In a critical argument the answerer cannot be anonymous since the premises of the argument are borrowed from him. This personal adjustment may seem less salient in the case of a dialectical argument since its premises do not come from the opponent but from common opinion. But when a dialectical argument is not only virtual, the arguer knows the person or the party she is talking to and chooses her common premises accordingly.

Contrary to the model at the core of pragma-dialectics which presupposes a critical symmetry between the arguers, Walton's approach leaves room for asymmetric epistemic situations. This is the case of information seeking dialogues. In *Informal Logic/ A Pragmatic Approach* Walton writes (Walton 1989, p. 7) that besides persuasion, inquiry and negotiation dialogues which are "the fundamental kinds or reasoned criticism", there are other forms including information-seeking dialogues. Here, "one party has the goal of finding information that the other party is believed to possess". This seems to come close to Aristotle's didactical arguments. However there is a difference stemming from Walton's dialogical/dialectical a priori. In an information-seeking dialogue the seeker is not the answerer but the questioner, the one who initiates the exchange. "The role of the respondent is to transmit the information by giving answers or replies that are as clear and helpful as possible" (Walton 1996, p. 126). On the

contrary, a didactical argument does not require a previous question to be asked. This can be illustrated by the case of professors making demonstrations in front of students who do not ask any question. Such a context is pragmatic without being dialectical or dialogical, except in the broadest sense. Walton avoids the restrictive view limiting argument to controversy, but making any argument part of a dialectical/dialogical system keeps too restrictive for it fails to acknowledge the pragmatic peculiarities of didactical arguments.

We come more explicitly to the relation between virtual dialectic, didactical arguments and mathematical proof with Eric Krabbe (Krabbe, 2008). His view is inspired by the integrated version of pragma-dialectics and he grants that proofs can be involved in dialectical exchanges. But he does not assume that mathematical proofs are arguments. Like most people having paid attention to the practice of mathematicians, he resists the common temptation to reduce all their works and productions to proofs. A proof is only an object – often a goal – in the life of mathematics and mathematicians. Historians and mathematicians, among others Pólya (Pólya, 1945, 1954) and Lakatos (Lakatos, 1976), have already stressed that informal exchanges and dialectical argumentation is very common in mathematical research, notably during the stage that classical rhetoric dubbed the "invention" of a proof. Mathematicians are sometimes at pain finding the demonstration of a conjecture and they have to argue to go ahead. Sometimes one of them argues with himself. And when the time has come to present a proof to colleagues, argumentation may still be needed to convince them. History is full of corpses of failed or uncompleted demonstrations, convincing for a time or for no time.

Krabbe grants that mathematical proofs may have an argumentative dimension of their own, but he keeps within an a priori dialectical conception of argumentation. For instance, about the various kinds of discussions arising around proofs he writes: "they are argumentative in the sense that, given some difference or conflict, they serve to overcome the doubt of an interlocutor". And he adds: "whenever in a proof the reasoning displays persuasive functions, the proof *can***[ii]** be regarded as an argument" (Krabbe 2008, p. 457). Yes, it can. But persuasion is not always the result of a fight against an opposition or a doubt. If persuading amounts here to giving reasons to make someone believe something, a previous opposition or doubt may not be necessary. To have no opinion about a claim is both an opinion (a position) and a different opinion without being a doubt.

You can persuade ignorant people too. And didactical arguments can do that.

Krabbe asks: “Is a formalized proof not the natural limit of dialectical depth”? Yes, but a limit touching two areas, different but close to each other and sometimes partly overlapping, the dialectical and the didactical one. Krabbe is certainly right when saying that “proof in a didactic context has not just explanatory functions, but also persuasive ones” (Krabbe 2008, p. 458). It may not be easy to disentangle one from the other, for understanding a proof is the result of both.

I neither contest what Krabbe says about dialectical situations in the practice of mathematics nor Johnson’s claim that “the conclusion of an argument is at least potentially controversial”. The assertion of the conclusion of an argument goes at least against contradictory statements but, *per se*, this trivial potential opposition does not require a pragmatic approach. Virtual dialectic can be seen as universal, but it lacks the pragmatic definiteness which makes an argumentation really contextual. And it has the drawback of concealing the specificity of didactical arguments or at least of a didactical use of arguments which requires neither an opposition nor an actual dialogue.

4. A thought experiment

Finally, here is an anecdote showing again that blurring the border between dialectic and didactic does not eliminate their specificities. It relies on two facts. First, that a mathematical demonstration has no definite length (We tend to forget it when talking about “*the*” demonstration of a theorem); second, that when you make a demonstration you sometimes “*jump*” from one statement to another, taking a shortcut that not everybody may follow.

During a public demonstration several voices broke the silence after a mathematician took a shortcut to reach his conclusion. One looked satisfied: “Yes. Brilliant! Very convincing.” Another complained “Wait! How do you get to the conclusion from the previous step?” And a third voice went on: “Come on! You have not proven that unbelievable conclusion.” Doubt, perhaps opposition, is creeping in with this last comment. But is the second one the expression of an opposition or a doubt? Not necessarily, it may be motivated by a lack of understanding.

Very devoted to his audience, the mathematician decided to give a single answer to everybody and began to get into the missing details. And at the same time his

speech gave a proof, explained and argued. And even if the last voice, the dialectical one had not been heard, the improved support that the mathematician gave to his conclusion would still have been an argument.

NOTES

i My emphasis.

ii My emphasis.

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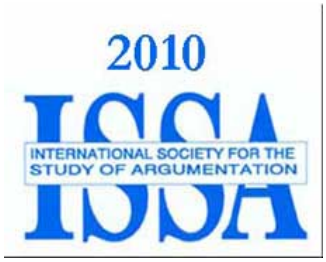
ISSA Proceedings 2010 – Bi-Logical Analysis Of Arguments In Political Propaganda: The Case Of The Chilean Press 1970-1973



This paper is an attempt to bring together ideas discussed in several papers that I have read in conferences of the International Society for Studies in Argumentation and the Ontario Society for Studies in Argumentation (Durán 2007, 2008 and 2010). Its main thrust is the view that the study of argumentation should include the analysis of emotional, physical and intuitive arguments as well as logical ones. However, this paper concentrates on the contribution that the psychoanalytic theory of Bi-Logic has to offer for the study of argumentation.

I begin this paper by summarizing the main aspects of my research on the propaganda of agitation developed by the Chilean daily newspaper El Mercurio of

Santiago against the government of Salvador Allende (1970-1973). A fully developed account of this study appears in my 1995 book (Durán 1995), and a summary of it was published in the Proceedings *of the Sixth Conference of the International Society for the Study of Argumentation* (Durán 2007). In essence, El Mercurio represented the interests of powerful enemies of Allende that felt threatened by his government, from the Chilean upper classes to the United States' government and some influential multi-national corporations. The purpose of the propaganda of El Mercurio was to undermine the Allende government by instilling fear and hatred in the middle classes and the military so that a coup d'état could be staged. This happened on September 11, 1973 followed by a military dictatorship of 16 years led by General Augusto Pinochet.

The concept of propaganda of agitation is taken from the French author Jacques Ellul (1973) who defines it as an opposition and subversive propaganda destined to undermine a government, even to overthrow it. Furthermore, according to Ellul, this form of propaganda operates within a crisis, or it tends to provoke it. Fear and hatred are generally two of its emotional objectives and springs. In contrast to propaganda of agitation, Ellul says, there is propaganda of integration, which is propaganda of conformity with a given social system. This latter form of propaganda tries to stabilize, unify and reinforce the social system. Finally, Ellul says that these forms of propaganda usually work together, in different combinations.

Two of the main themes of El Mercurio's propaganda were at that time, "Need for Order" and "Marxist Violence". Both were quantitatively and qualitatively very significant, and intended to portray what El Mercurio perceived as the fundamental clash in Allende's Chile. The following image illustrates the clash. In the picture, a violent Marxist appears attacking a police officer, who represents traditional order, according to El Mercurio.


EL MERCURIO

Horrible Asesinato de una Joven

Acusación Contra Intendente Joignant

Renuncia el Ministro de Educación

DROGAS

INGLES

"El Mercurio"

CIERRES ECLAIR IMPORTADOS

Fig. 2

However, another important theme in this propaganda was “Anguishing Portrait of the World”. This was an unusual theme for El Mercurio, a paper that represents a rather liberal rational tradition in Chile. The theme intended to relate items about crimes, accidents, natural catastrophes, fires and other non-political anguishing stories to Marxist Violence, as if both kinds of items were of the same nature, and indeed identical. Thus, a news-story about a murder, for example, could be closely related to a Marxist vicious attack. This issue is illustrated in the following image (Fig. 2) .

This page juxtaposes two completely different events that took place in subsequent nights, as if both represented the state of Chile in terms of criminal

and/or Marxist violence.. The main headline reads “Horrible murder of a young girl”; there is a picture of the place where she was found (actually she was murdered and raped) in the Spanish Country Club in Santiago; and another picture of the same story shows the brother of the girl talking to journalists from El Mercurio. The other set of stories refers to violence incurred by a Marxist assault of High School for Girls No. 12.

For several months, coverage of crime became very high in El Mercurio. The next illustration shows how the newspaper attempted to describe a criminal gang as very dangerous and bloody. (Fig. 3)

The headline reads, “Two bloody assaults by the ‘Black Jackets’ in the Capital”. This gang appeared all of a sudden as a Congress election campaign started in Chile. El Mercurio presented it as a high-level criminal organization, equivalent to similar gangster organizations in the United States. The ‘Black Jackets’ was identified metaphorically with an extreme left Marxist movement on the basis of the black color of the uniforms of its members.


EL MERCURIO

Sobresaimiento Definitivo En el Caso del "Pueblo"

Presiones Oficialistas Contra "El Sur"

Dos Sangrientos Asaltos Cometen "Los Chaquetas Negras" en la Capital

A LOS INSCRITOS EN EL SISTEMA POR SORTEO

LOCALES MATARO

COMO VEND R MAS!

Fig. 3

However, the most gruesome and remarkable case of propaganda of agitation by El Mercurio was the coverage of the “Quartered Man” of Quilicura. The story appeared two weeks before the Congress election, and was covered with great intensity until then. The next page of El Mercurio illustrates this case (Fig. 4).

The headline here reads, “The body of the man found in Quilicura was quartered

alive". Quilicura is a small town in the outskirts of Santiago.

During the two weeks of coverage of the "Quartered Man" before the election, packages with human flesh were found in plastic bags in successive days. The case gave rise, as well, to news-stories about cannibalism that clearly echoed the cannibalism practiced by a group of young rugby players from Uruguay in the last two months of 1972. Their plane had crashed in the Andes, and they survived eating human flesh (Fig. 5).


En Vida Habrian Cercenado
El Cuerpo del Hombre
Encontrado en Quilicura
Policía se Moviliza
Tras Fiat 600 Robado

Fig. 4

The next page of El Mercurio appeared the day before the election. It represents an outstanding case of juxtaposition of disturbing items. The main headline reads, "Armed Forces Take Control". It is juxtaposed to the following news-items: El Mercurio equivocally identified Allende as saying that the government intends to advance towards dictatorship of the proletariat; the ambassador of the United States is assassinated (in Sudan); the wife of the Quartered Man is found strangled; and there is a very low-key picture about the election the next day. Now, the headline about the Armed Forces is misleading because, according to the Chilean Constitution, the Armed Forces in times of election assumed control of Public Order: the headline is clearly suggesting that the Armed Forces should take Control of the Country! (Fig.6)

Finally, the day of the election, the coalition of all the opposition parties to Allende published, as a coalition, only one political ad. The ad relates one of the cases of cannibalism covered in the past two weeks, and generally the "Quartered

Man" story, explicitly to the situation of Chile in those days.

In the second part of the paper, I introduce Michael Gilbert's theory of Multi-Modal Argumentation. In doing so, I try to show that the propaganda of agitation discussed in part one, can be described in a comprehensive and thorough way in terms of this theory. Michael Gilbert attempts an 'opening' of the traditional view that has conceived argumentation as based, essentially, on the logical mode. His theory proposes that we enlarge and extend the range of meaningful intellectual, academic and argumentation activities to include: Emotions, which had been traditionally excluded, at least from Plato onwards. Physicality, that is, the domain of the body, which includes visual aspects. Moreover, the kisceral, which relates to intuition, the spiritual, the religious, the uncanny, etc.


EL MERCURIO

Fuerzas Armadas Asumen el Control

MAPU Reconoce Autenticidad Del Documento

Allende, Interprete Del Informe MAPU

Estrangulada Esposa del Descuartizado

Fig. 5

Gilbert (Gilbert, 1997, p. 75) introduces his theory in the following passage: "It has been argued in previous chapters that the traditional and dominant mode of arguing, the C-L, Critical-Logical mode, is restrictively narrow. When this mode is seen as the only legitimate form of rational argumentation, then there are profound and unreasonable limitations on actual argumentation as performed by real actors, and the limitation of methods favored by one group over another. These limitations provide both descriptive and normative reasons for rejecting the C-L mode as the sole legitimate form of argumentation. In this chapter, three new modes of argumentation, raising the number to four, are introduced. In addition to the classical logical mode (usually and egregiously identified with the "rational"), there are the emotional, visceral (physical), and kisceral (intuitive)

modes."

It is important to stress that this is not a way of reversing things, such that the logical mode would be excluded, but now, this mode can be assessed in the full flow of argumentation: it is possible thus to recognize the fundamental and substantive roles played by all the modes.

Applying now Gilbert's theory to the analysis of El Mercurio's propaganda, it is convenient to go one mode at a time. Thus, from the point of view of the logical mode, the first thing that stands out is a set of arguments that relate Marxists to violence, quartering and cannibalism. A plausible expression of such set is the following:
(1) All criminals (or quarterers or cannibals) are violent
All Marxists are violent
Therefore, all Marxists are criminal (or quarterers or cannibals)

Fig. 6

Any one of the implied arguments here is a second figure syllogism, and thus, invalid. These arguments can be gathered from specific pages of El Mercurio as well as from the whole propaganda. The idea was to instill fear in the population at large, especially the middle classes and the military. To start with, then, the logical mode shows the presence of invalid arguments. In any event, the invalid logical arguments as mentioned, relate to the production of fear and, in addition hatred in large sections of the Chilean people. This takes the analysis to the emotional mode. It is possible to claim that this is the predominant mode in El

Mercurio's propaganda of agitation. Another significant element, from the perspective of the logical mode, is the presence of fallacies that appeal to emotions such as appeal to fear, abusive ad hominem, loaded language, etc. In this sense, these two modes work closely connected to each other.

It is important as well to indicate the input of the physical mode, in this case in its visual dimension. This seems evident in this propaganda. The pages of the newspaper serve as the background for actual visual expressions: We see the impact of the layout of each page, the juxtaposition of items, the influence of some individual items, be they headlines or pictures.

Finally, considering the kisceral mode, I believe it is also present in the propaganda. The attempt has been to induce a profound connection between crimes, accidents, and natural catastrophes, etc., on the one hand; but also, on the other hand, the connection between them and Marxist violence.

There is, however, another interesting aspect in dealing with the logical mode. The study that I presented in part one of this paper, concentrated on propaganda of agitation. Nevertheless, the study as a whole focused, as well, on some relevant aspects of propaganda of integration. In this sense, it is important to show one specific and significant valid logical argument found in the study.

(2) The Marxists always try to destroy democracy
Allende and his people are Marxists
Therefore, Allende and his people are trying to destroy democracy

Furthermore, if Allende and his people are destroying democracy, then they should be stopped with military violence. There is a good deal of historical sense in this argument, so besides its validity, the argument could be considered sound as well.

Given the comprehensive view that is possible to gain with the application of Multi-Modal Argumentation to the study of El Mercurio's propaganda, a further issue becomes clear. The four modes work in integration in the propaganda; they relate to each other in a way that makes the propaganda much stronger. They subtly reinforce each other. For example, the valid, and plausibly sound argument mentioned above, can provide logical credibility to the emotional, visual and kisceral argumentation. The layout of the pages and their structure contribute to make the propaganda more credible. However, the fundamental issue is to

reinforce the production of fear and hatred so that the middle classes and the military can be prepared to undertake military action against Allende. For that purpose, the propaganda has provided logical grounds as well. I believe it is pertinent to say, that any individual opposing Allende would experience great anxiety, and that she or he would be able to produce invalid and valid logical arguments, and these latter arguments would provide a sense of credibility to their mere emotional reactions. This key issue will be examined in more detail below.

So far, I have tried to show that the propaganda of agitation by El Mercurio against the government of Allende in Chile entails a combination of all four modes of Michael Gilbert's theory of Multi-Modal Argumentation, and that the predominant one is the emotional mode. In the next part of the paper, I attempt to develop a Bi-Logical interpretation of El Mercurio's propaganda with especial focus on emotional arguments.

Bi-Logic is a psychoanalytic theory introduced by the psychoanalyst Ignacio Matte-Blanco with the publication of his main book *The Unconscious as Infinite Sets. An Essay in Bi-Logic* (Matte-Blanco, 1975). The essential issue in this theory is the assumption that there are two different logics operating in the mind. In order to understand Bi-Logic, it is necessary to be aware of set theory and the concept of relation, and specifically one of the properties of relations, called symmetrical/asymmetrical. A relation is called symmetrical when the relation can be reversed and asymmetrical when it cannot. Thus, a=b is a symmetrical relation for the relation is maintained if we reverse it and say b=a; whereas a relation is called asymmetrical if it cannot be reversed, such as in the case of a>b. In essence, Matte-Blanco believes that, based on those two issues, it is possible to systematize Freud's proto-logical ideas on the unconscious. For, according to Matte-Blanco, in the unconscious there is no respect for asymmetrical relations and then all relations tend to be treated as symmetrical. In this sense, he says that the unconscious is regulated by what he calls the Principle of Symmetry (PS).

In his attempt to reformulate the Freudian unconscious, Matte-Blanco deduces a set of consequences that derive from the PS.
1) If the PS is applied then the part becomes identical to the whole. The reason for this identification is that if 'p' is part of the whole 'W', then applying the PS, 'W' is part of 'p'. This takes us to identify part 'p' and whole 'W'. Moreover, the same would happen to each part of this whole with the consequence that all the

parts of a whole are identical to the whole and to each other.
2) If the PS is applied then the members of a set are identical to the set and to each other. Similarly to the above explanation, if 'm' is a member of the set 'S', then applying the PS, 'S' is a member of 'm'. The same would happen to each member of the set and thus, they would be identical to each other and the set. The same can be said of subsets as related to sets.
3) If the PS is applied then there are no negations. For if the set of affirmative propositions is a subset of the set of propositions, and then applying the PS, the set of propositions is a subset of the set of affirmative propositions. The same would apply to the subset of negative propositions with the consequence that this set would be identical to the set of affirmative propositions.
4) If the PS is applied then there are no contradictions. The reason relates closely to the previous consequence of the application of the PS: since the affirmative and negative propositions are identical to each other, there cannot be contradictions.

Now, if we take seriously the (possible) existence of a PS and its consequences as described above, then certainly, we would be in the realm of another 'logic'. Consider the following argument: The body is contained within the heart because it is clear that the heart is contained within the body. This logic is called by Matte-Blanco "symmetrical" logic. It refers to the sequence of propositions that results from applying the PS to a given piece of quite acceptable traditional logic. Notice, therefore, that symmetrical logic appears in the propositional sequences of traditional logic whenever the PS makes itself present in its midst. In essence, then, this logic assumes traditional logic as operating all the time. On the other hand, it should be said that traditional logic assumes that symmetrical logic is operating all the time. Another important point about Bi-Logic here is that our thinking processes are combinations of traditional logic and symmetrical logic, in different proportions, depending on the level of depth of the appearance of symmetry. Thus, in a mathematical theorem, the level of traditional logic is very high and the level of symmetry very low, whereas in a psychotic piece of reasoning, such as the above example of the heart and body relation, the opposite happens. In reality, our thinking processes are classified as happening between two polar extremes: pure traditional logic and pure symmetry, both of them, of course, impossible to achieve. Therefore, there are many levels of symmetrical depth. Matte-Blanco discusses this idea in detail and systematically in his book *Thinking, Feeling and Being* (1988). In synthesis, he shows that, due to the proportions in which asymmetrical and symmetrical logic combine, it is possible

to distinguish a series of strata or zones in the mind. He concludes that there are five basic strata or zones: a first zone in which asymmetrical logic predominates; a second one in which both logics appear in similar proportion; a third one in which the set is identified with its members; a fourth zone in which two or more sets are identified with each other; and finally, he refers to a fifth strata in which all sets tend to be identified with one another.

Matte-Blanco explores as well the way in which emotions relate to thinking, and he concludes that emotional thinking is bi-logical, with a stronger predominance of symmetrical logic. I come back now to Michael Gilbert's theory of Multi-Modal Argumentation, in order to develop a Bi-Logical interpretation of emotional argumentation found in the propaganda of El Mercurio. Emotional arguments may be characterized as arguments in which emotions arise in a meaningful way, that is, emotions become the most important aspect of the argument. However, according to Matte-Blanco, when emotions appear, they involve a type of thinking which is symmetrical. The emotional state developed when being in love, for example, takes the person in love to think that the loved one is the most beautiful or handsome person in the world, and tends to attribute to him or her all the positive qualities that could be thought about. Evidently, asymmetrical thinking takes a lesser role here.

Now, which exactly is the nature of the emotional argumentation found in the propaganda of agitation of El Mercurio? I said that the assumption is that El Mercurio's propaganda, seen in its overall and comprehensive multi-modal shape, had the purpose of developing fear and hatred, especially in the middle classes and the military so that a coup d'état could be in place to overthrow Allende. The way in which these emotions were developed is highly subtle and sophisticated, for the whole campaign involved a set of invalid and valid logical arguments, fallacies of appeal to emotions, visual appeals in the layout of the pages, and kisceral connections. In synthesis, all of the above centered on the following emotional issues: the Marxists closely relate to crime, quartering and cannibalism. In that way, they destroy the very fabric of a society, and then the traditional sense of order is undermined. They do it, so that they can replace democracy with a Communist dictatorial system. There is in these highly charged emotional issues, an assemblage of points that are not at a clear level of asymmetrical understanding. I mean, it is logically acceptable to say that Marxists try to overthrow capitalist democratic regimes; it may be debatable, but there are

historical and political precedents to assert that claim. Thus, it is only reasonable that people may develop fear, and indeed hatred, against the Marxists. These emotions possibly belong to the second strata mentioned above, one in which there seems to be a sort of balance between asymmetry and symmetry. However, the association of Marxists with crime is logically indefensible, and more problematic is the connection between Marxists and quartering and /or cannibalism. The emotions here correspond to deeper strata of the mind, where very little sense of asymmetry could be found. Most probably, in these strata the anxieties are so strong and terrifying, that people may fall in states of sheer panic.

In my 1995 book (Durán, 1995), I discussed this topic as well from a traditional psychoanalytic perspective, using ideas derived from the clinical work of the Melanie Klein School. I cannot discuss this approach in any detail here, but I would like at least, to mention a few things about it. According to Matte-Blanco, some significant correlations can be made between the strata discussed above and clinical findings of other psychoanalytic schools. One of these correlations relates to intense fears of destruction of the body, of being torn apart, of cannibalistic impulses, etc. that are encountered in clinical practice, especially in Kleinian analysis. Moreover, some analysts of this school who have done clinical work with groups as opposed to individual therapy, claim that when the group fails, disintegrates, or is in danger, the above fears tend to increase. Indeed the Chilean society, in the Allende years, was in a serious critical state where people felt in great danger. Therefore, the fears that I have mentioned above were running rampant as well as strengthened by the propaganda of agitation of El Mercurio. Finally, those fears happened at the third and fourth strata of symmetrical depth given the confusion of sets entailed.

In the final part of this paper, I attempt to develop a way of evaluating the propaganda of agitation of El Mercurio. Indeed, it is possible to focus upon the logical arguments and decide on their validity and on the truth of the premises, if they are formal arguments, and/or on the nature of the informal fallacies that they may contain. Certainly, El Mercurio's propaganda campaign would seem to be faulty in terms of an assessment in the logical mode, but this may be reductionist, for the propaganda of El Mercurio centers on the emotional mode as discussed above. Therefore, criteria for evaluation of emotional arguments need to be ascertained, and this is not something that has been done in the field of Multi-

Modal Argumentation. One plausible approach to the evaluation of propaganda and emotional arguments is focusing upon their success.

Of course, many people would be prepared to say that El Mercurio's propaganda of agitation against the government of Salvador Allende was successful, in that it contributed to mobilize the middle classes and the military in order to oust Allende. Indeed, these social sectors were mobilized because their way of life was in serious danger. Therefore, El Mercurio, as their representative, was right in its propaganda of agitation, since it was meant to defend them against a potential traditional Communist dictatorship. The criterion implied here is that in the defense of a way of life, it is right to use deep emotional arguments against the aggressors.

However, this criterion seems to be missing an ethical clearance, so to speak. At this point, I would like to introduce an idea contributed by my colleague Leo Groarke from University of Windsor in Canada. In an e-mail exchange concerning the evaluation of emotional arguments, Groarke suggested that, "I argue that a plausible account of argument in informal contexts cannot reduce acceptability to 'acceptable as true', and that we need a broader notion of acceptability that recognizes moral and emotional elements of acceptability." Of course, the same idea would apply to the other two non-logical modes of argumentation in Gilbert's theory, but in the present paper, the issue relates only to the emotional mode. Applying this idea to the evaluation of El Mercurio's propaganda against Allende, a plausible interpretation can lead to the conclusion that for the upper classes, the middle classes and the military, the coup d'état was both, emotionally and ethically acceptable. Now, for the people who suffered the coup and the ensuing military repression of the Pinochet regime, the coup was both, emotionally and ethically unacceptable. Thus, so far, it is possible to claim that the coup was emotionally and ethically acceptable for some and not acceptable for others. However, is there a way of superseding the relativism of this conclusion? In order to examine this question, I believe it is necessary to inquire into the nature of the views of each side involved in the conflict.

Taking a rather common sense and ordinary experience in liberal-democratic societies, people have a chance to develop strong positive emotions about their lives. Thus, they will fight very hard against attempts to undermine the system, and then they would be prepared, most probably, to support a coup against a government who threatens to undermine the society. People are deeply attached

to the liberal-democratic system in emotional and ethical terms.

However, what happens to the people who are undermining the social system? They seem to have emotional and ethical reasons as well in their attempts to replace it with another system, even if this is dictatorial. After all, these people have been excluded from the real and symbolic goods produced by the overall society. Therefore, they have not been able to develop the strong positive feelings that the upper and middle classes have developed. Their struggle is for access to share in the wealth of the society. Therefore, for them the coup is not emotionally and ethically acceptable.

Thus, it seems that it is not possible to come out of the relativism of the claim that the coup, and the propaganda against Allende, was emotionally and ethically acceptable for one part of the society and not for another. In concluding the paper, it is clear that more research needs to be undertaken for the development of a thorough way of emotional and ethical evaluation of propaganda.

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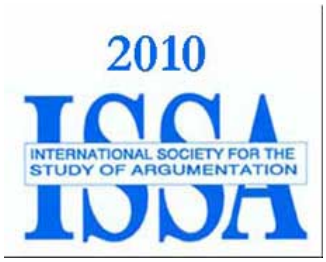
ISSA Proceedings 2010 – The Extended Pragma-Dialectical Argumentation Theory Empirically Interpreted



1. The analytical status of the notion of 'strategic maneuvering'

The notion of strategic maneuvering, introduced by van Eemeren and Houtlosser, is basically an analytic concept enabling a more refined, accurate and comprehensive account of '*argumentative reality*' than can be achieved by means of the existing, purely dialectical tools of canonical, standard pragma-dialectics (van Eemeren & Houtlosser, 1999b, 2000, 2002a, 2000b; van Eemeren, 2010). With the help of the notion of strategic maneuvering it becomes possible to reconstruct argumentative discourse as it occurs in practice in such a way that not only the dialectical dimension pertaining to its reasonableness is taken into account, but also the rhetorical dimension pertaining to its effectiveness (van Eemeren, 2010). In sum, in the extended pragma-dialectical approach incorporating the theory of strategic maneuvering the standard analysis of argumentative discourse is systematically enriched with the use of rhetorical insight.

The extended pragma-dialectical argumentation theory in which classical and modern rhetorical insights are integrated in the existing pragma-dialectical tools for reconstruction – i.e. resolution-oriented reconstruction – offers in the first place *analytical* instruments for analysing and evaluating argumentative discourse. It is not an *empirical* model of the various ways in which ordinary arguers try to achieve effective persuasion within the boundaries of dialectical

rationality.**[i]**

Argumentative discourse can only be critically evaluated in a theoretically justified way if the discourse has first been adequately analysed. Starting from the pragma-dialectical point of departure, the analysis of argumentative discourse can be envisioned as a methodical reconstruction of the process of resolving the difference of opinion contained in the discourse. Using the extended theory taking account of strategic maneuvering as an analytical instrument for analysis and evaluation is to lead to an analytical overview attuned to enabling a sound critical evaluation. The ideal model of a critical discussion can serve as a heuristic instrument for reconstructing argumentative discourse in such a way that it becomes clear which function the various speech acts performed in the discourse fulfil and which commitments they create.

In a reconstruction of a discourse as a manifestation of a critical discussion it is assumed that the arguers aim to resolve their dispute on the merits. At the same time, however, it may be assumed that they will be intent on having their own standpoints accepted. This means that on the one hand they have to observe the dialectical obligations that have to do with the argumentative procedures that further an abstract ideal of reasonableness in critical discussion while on the other hand they have aims and considerations that are to be understood rhetorically in terms of effectiveness (also referred to as persuasiveness). Attempting to resolve a difference of opinion and *at the same time* trying to do so in one's own favor creates a potential tension between pursuing dialectical objectives and rhetorical, persuasive aims. It is precisely this potential tension that gives rise to what van Eemeren and Houtlosser have coined *strategic maneuvering*, which is aimed at making the strongest possible case while at the same time avoiding moves that are clearly unreasonable.

In argumentative discourse, whether it takes place orally or in writing, it is generally not the arguer's sole aim to win the discussion, but also to conduct the discussion in a way that is considered reasonable […] In their efforts to reconcile the simultaneous pursuit of these two different aims, which may at times even seem to go against each other, the arguers make use of what we have termed *strategic maneuvering.* This strategic maneuvering is directed at diminishing the potential tension between pursuing at the same time a 'dialectical' as well as a 'rhetorical' aim (van Eemeren & Houtlosser, 2002b: 135).

In a great many cases, the maneuvering, whether it is successful or not, is in perfect agreement with the rules for critical discussion and may count as acting reasonably. As a rule, strategic maneuvering is at least aimed at avoiding an open violation of these critical standards. Even arguers who momentarily let the aim of getting their own position accepted prevail will strongly attempt to keep up the appearance of being committed to the critical ideal of reasonableness (van Eemeren & Houtlosser, 2002: 16).

Much more could be said about this view of strategic maneuvering, but this short overview (and the references that are given) may suffice to show that one could easily be misled by interpreting the analytical model involved as an empirical-psychological one, as a model that aims to describe the argumentative behavior of ordinary arguers and their intentional, persuasive goals in ordinary real-life discussions. As said before, the analytical model for dealing with strategic maneuvering is definitely not an empirical model. One of the consequences of the specific analytical character of the model is that it cannot simply be put to a critical empirical test, at least not in a strict sense: empirical data are not able to falsify this model, nor are they able to confirm it – unless one is willing to add certain psychological or sociological assumptions to the model which are empirical by their very nature. But this does not mean that, seen from an empirical point of view, this model is useless: even if the model cannot be empirically tested in a strict sense, it is easy to see that it can function as a source for the derivation of theoretically motivated hypotheses about the argumentative behavior and persuasive goals of arguers in ordinary argumentative practice. And that is precisely the way in which this model will be used in this paper.

2. Three predictions

Three rather straightforward and plausible predictions can be derived from the notion of strategic maneuvering if this concept is interpreted empirically:

(1) Ordinary arguers are, at least to a certain extent, aware of their dialectical obligations; they know, at least at a pre-theoretical level, which contributions to the discussion are in accordance with the rules for critical discussion and are thus to be regarded as reasonable, and which contributions have to be considered as violations of these dialectical rules, in other words: which moves are fallacious and thus unreasonable. If ordinary arguers would lack such specific knowledge of the boundaries of the dialectical framework, there would be no reason at all for them to maneuver in a strategic sense – in that case they could go all out for

rhetorical effectiveness, pursuing only and exclusively their own personal persuasive aims without taking into account the obligations dictated by the dialectical framework.
(2) Ordinary arguers assume that the other party in the discussion commit themselves to the same kind of dialectical obligations as they themselves do. If these jointly shared expectations (the protagonist knows… (…) and the protagonist knows that the antagonist knows… (…)) would not be in force in ordinary discussions, there would again be no reason for them to maneuver strategically. Expressed differently, ordinary arguers assume their interlocutors to apply similar norms and criteria for the evaluation of the reasonableness of discussion contributions as they themselves do, and regard 'overt' fallacies equally unreasonable as they do.
(3) Ordinary arguers assume – and assume that their interlocutors assume – that discussion contributions that violate the norms incorporated in the rules for critical discussion are unreasonable and that interlocutors who violate these commonly shared rules can be held accountable for being unreasonable. Consequently, the notion of 'reasonableness' is not only perceived by ordinary arguers in a merely ("descriptively") normative sense, but also (and for the most part) in a prescriptive sense. Again, if this condition would not be met, there would be no reason for the discussion parties to maneuver strategically.

3. Prediction 1

3.1. Method prediction 1

During the past years we collected a mass of empirical data that are relevant for testing the first claim. In 1995, we started a comprehensive empirical project entitled *Conceptions of Reasonableness* that was completed in 2008 (for a detailed overview, see van Eemeren, Garssen & Meuffels, 2009). The aim of this project was to determine empirically which norms ordinary arguers use (or claim to use) when evaluating argumentative discourse, and to what extent these norms are in agreement with the critical theoretical norms of the pragma-dialectical theory of argumentation. Expressed differently: the aim of this ten-year project was to investigate and to test the *conventional validity* of the pragma-dialectical discussion rules: can it be expected that in actual discussion the rules are intersubjectively approved by the parties involved in a difference of opinion? The *problem validity* of the pragma-dialectical rules (are the rules instrumental in resolving a difference of opinion?) is primarily a theoretical issue. In contradistinction, the conventional validity of these rules can only be established

by means of empirical research.

We carried out some 50 independent experiments, investigating the (un)reasonableness of 24 different types of fallacies. The setup of the experiments, the design of which we will report here, was in all cases the same: a *repeated measurement design*, combined with a *multiple message design*. That means that a variety of discussion fragments, short dialogues between two interlocutors A and B, were presented to the participants. (1) is an example of such a discussion fragment in which the abusive variant of the ad *hominem* fallacy is committed, (2) an example of the circumstantial variant, and (3) an example of the *tu quoque*-variant.

(1) (abusive variant; direct attack)
A: I think a Ford simply drives better; it shoots across the road.
B: How would you know? You don't know the first thing about cars.

(2) (circumstantial variant; indirect attack)
A: In my view, the best company for improving the dikes is Stelcom Ltd; they are the only contractor in the Netherlands that can handle such an enormous job.
B: Do you really think that we shall believe you? Surely, it is no coincidence that you recommend this company: It is owned by your father-in-law.

(3) (*tu quoque*-variant; you too variant)
A: I believe the way in which you processed your data statistically is not entirely correct; you should have expressed the figures in percentages.
B: You're not being serious! Your own statistics are not up to the mark either.

For baseline and comparison purposes, the participants also had to judge the (un)reasonableness of fragments in which no violation of a pragma-dialectical rule was committed:

(4) (no violation of the freedom rule)
A: I believe my scientific integrity to be impeccable; my research has always been honest and sound.
B: Do you really want us to believe you? You have already been caught twice tampering with your research results.

In all cases in the discussion fragments non-loaded topics were discussed, and in all cases paradigmatic, clear-cut cases of the fallacies were constructed. All

fragments were put in a certain context. For instance, fragment (1) was presented in a domestic discussion context, fragment (2) in a political context, and fragment (3) and (4) in the context of a scientific debate. The participants were invariably asked to judge the reasonableness of the last contribution to the discussion, i.e. the contribution of B in the examples above. The participants had to indicate their judgment on a 7-point Likert scale, ranging from very unreasonable (=1) to very reasonable (=7).

3.2. Results prediction 1

First, we tested the conventional validity of the rule for the confrontation stage (the Freedom Rule) by investigating the (un)reasonableness of the three variants of the *ad hominem* fallacy, various variants of the *argumentum ad baculum*, the *argumentum ad misericordiam*, and the fallacy of *declaring a standpoint taboo or sacrosanct* (see Table 1 a + b).

Table 1a

Table 1: Overview of average reasonableness score for fallacious discussion contributions and the non-fallacious counterparts; effect size (ES) for the difference between the (un)reasonableness of fallacious and non-fallacious discussion contributions, per argumentation stage – (1=very unreasonable; 4=neither unreasonable, nor reasonable; 7= very reasonable)

Second, we tested the validity of the rule for the opening stage (the Burden of Proof Rule) by investigating the (un)reasonableness of, among others, the fallacy of shifting the burden of proof and the fallacy of evading the burden of proof in a

non-mixed and in a mixed dispute. Third, we tested one of the pragma-dialectical rules for the argumentation stage (in this case rule number 8, the Argument Scheme Rule) by investigating the (un)reasonableness of the *argumentum ad consequentiam*, the *argumentum ad populum,* slippery slope and false analogy. And last, we tested the conventional validity of the rule for the final stage in a critical discussion (the concluding stage), by investigating the (un)reasonableness of the *argumentum ad ignorantiam*.

From the data presented in Table 1(a + b) it is clear that – with the notable exception of the logical variant of the *argumentum ad consequentiam* – the participants in our experiments made a clear distinction between the unreasonableness of discussion moves that, according to pragma-dialectical standards, involve a fallacy and those that are not fallacious: fallacious discussion moves are considered unreasonable by ordinary arguers, while non-fallacious moves are judged as reasonable.**[ii]** These results can be taken as a strong support for our first prediction: ordinary arguers are to a large extent aware of what the dialectical obligations in an argumentative discussion entail.**[iii]**

standpoint without presumptive status 63	2.72	5.68
standpoint with presumptive status (truths) 41	3.45	5.68
standpoint with presumptive status (changes) 45	3.46	5.68
Violations of the argumentation scheme rule: argumentation stage		
16. *argumentum ad consequentiam*		
logical variant .00	3.82	4.39
pragmatic variant .37	2.96	5.03
17. *argumentum ad populum* .40	2.77	5.68
18. slippery slope .25	3.31	5.31
19. false analogy .29	3.14	4.74
Violation of the rule for the concluding stage: concluding stage		
20. *argumentum ad ignorantiam* .56	2.56	5.56

Table 1b

4.Prediction 2

Methodological considerations

In contrast with the mass of empirical data we have collected in order to test the conventional validity of the pragma-dialectical discussion rules, only one single experiment is conducted in which we tested our second prediction that could be derived from the extended model incorporating strategic maneuvering. This prediction pertains to the reciprocal social expectations of discussion parties

regarding the commitment to dialectical discussion rules: ordinary arguers assume that the other party in the discussion commit themselves to the same kind of dialectical obligations as they themselves do. As for testing this second prediction (and, by the way, also the third prediction), we will make use again of the empirical results obtained in the project *Conceptions of Reasonableness*.

In the project *Conceptions of Reasonableness* the three variants of the *ad hominem*-fallacy are investigated frequently, not only in the Netherlands but also in countries abroad (see Table 2). As a consequence, we have now insights into (1) the stability of the reasonableness data for the three types of fallacy, (2) the ordinal reasonableness relations of the three types of fallacy, and (3) the absolute reasonableness assessments of the three types of fallacy. Based upon these insights, different specific predictions can be inferred for experiment 2 (and also for experiment 3). First, from the consistent results shown in Table 2 it is clear that the ordinal relations between the rated reasonableness of the three types of *ad hominem*-fallacy in the original main investigation and in the replications of this investigation are identical: the direct attack is invariably judged as the least reasonable move, next the circumstantial variant, and lastly the *tu quoque*-variant. Second, the *tu quoque* variant tends to be judged as a reasonable move, provided we abstract from the specific contexts in which this fallacy was offered to the participants. Third, in line with the results reported in Table 1 it is evident that invariably those non-fallacious, reasonable discussions contributions are (in a statistically significant sense) considered as more reasonable than the fallacious moves in which an *argumentum ad hominem* is committed.

Table 2: Average reasonableness score for three types of ad hominem*-fallacy (direct attack (=dir), indirect attack (=ind), tu quoque-variant (=tu)) and for non-fallacious reasonable argumentation, per replication (standard deviation: between brackets)**

	dir	ind	tu	
	reasonable			
original investigation (.64)	2.91 (.64)	3.89 (.57)	4.45 (.60)	5.29
replication 1 (.72)	2.99 (.76)	3.47 (.94)	3.82 (.88)	5.26
replication 2 (.65)	3.08 (.66)	3.82 (.92)	4.15 (.61)	5.03
replication 3 (.67)	3.38 (.87)	4.21 (.78)	4.54 (.67)	5.09
replication 4 (UK)	3.32 (.64)	4.13 (.61)	4.54 (.46)	5.24 (.48)
replication 5 (Germany)	2.99 (.61)	3.52 (.66)	3.93 (.63)	4.88 (.42)
replication 6 (Spain)	3.51 (.87)	4.23 (.70)	4.49 (.73)	4.93 (.65)
replication 7 (Spain)	3.01 (1.12)	3.61 (.75)	3.99 (.78)	4.97 (.86)
replication 8 (Indonesia)	3.21 (.78)	3.75 (.99)	4.53 (.83)	5.10 (.56)

**(1=very unreasonable; 4=neither unreasonable, nor reasonable; 7= very reasonable)*

Table 2

Table 2: Average reasonableness score for three types of ad hominem*-fallacy (direct attack (=dir), indirect attack (=ind), tu quoque-variant (=tu)) and for non-*

fallacious reasonable argumentation, per replication (standard deviation: between brackets) *(1=very unreasonable; 4=neither unreasonable, nor reasonable; 7= very reasonable)*

In our investigation of prediction 2 we exposed our participants to instantiations of the three types of *ad hominem*-fallacy and instantiations of non-fallacious moves, and we requested them to rate the (un)reasonableness of these discussion fragments (i.e. the last contribution) according to their own insights and judgment – as was the case in all our experiments conducted within the framework of the project *Conceptions of Reasonableness;* in addition to that, they had to rate similar fallacious and non-fallacious fragments, but this time with the instruction to indicate how reasonable or unreasonable they think and expect that *relevant others* would judge these fragments. Prediction 2 can be considered to be confirmed if the three above mentioned stable patterns of Table 2 show up again, not only in the condition in which the participants have to rate the fragments according to their own insight but equally well in the condition in which they have to make an estimation of the judgment of relevant others. Any difference between both conditions as a (statistical) main effect (or an interaction between 'condition' and 'type of fallacy') would be disastrous for the confirmation of prediction 2.

4.1. Method prediction 2

In order to test prediction 2, 48 discussion fragments were constructed: short dialogues between two discussants (called A and B) in which the antagonist B violated 36 times the pragma-dialectical rule for the confrontation stage by means of one of the three variants of the *argumentum ad hominem*. In 12 discussion fragments no discussion rule was violated; in those fragments B adduced only non-fallacious, reasonable argumentation.

Two versions were constructed: version 'Self' and version 'Other', both consisting of 24 discussion fragments; the fragments in each version were randomly drawn from the whole set of 48 fragments and subsequently quasi-randomly assigned to one of the two versions, such that both versions contained precisely the same number of instantiations of the same type of fallacy. Consequently, both in the version Self and in the version Other the direct attack, the indirect attack and the *tu quoque*-variant are each represented by 6 instantiations. The design in this experiment can thus characteristically be regarded as a *multiple message design* (examples of concrete messages presented to the participants are shown in

Section 3).

56 pupils of the fourth and fifth year of secondary school (most of them 16 and 17 years old respectively) participated in the experiment; none of them had ever had any specific argumentation teaching. After each discussion fragment in the version Self the question that is asked is "How reasonable or unreasonable do you (*yourself*) think B's reaction is?", and in the version Other the question that is asked is "How reasonable or unreasonable do you think *relevant others* would judge B's reaction?" (relevant others were in the instruction described as friends or relatives). In both versions they could indicate their judgment on a 7-point scale, ranging from 1 'very unreasonable' (=1) to 'very reasonable' (=7). The order of presentation of the two versions was randomized over the subjects; half of the participants had first to fill in the version Self and subsequently the version Other, the other half of the participants received the reversed order (as there were no statistical significant differences between the two orders, we will abstract from this variable). As all the participants were exposed to all levels of both the independent variable 'version' and the independent variable 'fallacy/no fallacy', the chosen design can also be described as a *repeated measurement design.*

4.2. Results prediction 2

The data in Table 3 were analyzed by means of a multivariate analysis of variance ('mixed model' approach for repeated measurements, with 'subject' and 'instantiation' as *random* factors and the variables 'version' and 'type of fallacy' as fixed factors; the *random* factor 'instantiation' is nested within the interaction of the fixed factors 'version' and 'type of fallacy', whereas the *random* factor 'subject' is fully crossed with the *random* factor 'instantiation' and the fixed factors 'version' and 'type of fallacy'; the statistical consequence of this rather complicated design is that – instead of ordinary F-ratio's – quasi F-ratio's have to be computed, while the degrees of freedom have to be approximated).

From the data in Table 3 it is evident that the well known ordinal pattern in reasonableness relations between the three types of *ad hominem* fallacies crop up again in this experiment, regardless of the type of condition (version). No matter whether the participants have to base their reasonableness ratings on their own judgment or whether they have to estimate the verdict regarding the unreasonableness of the three variants of the *ad hominem* fallacy of relevant others, the direct attack is invariably judged as the most unreasonable move, next

the indirect attack and subsequently the *tu quoque*-variant. And precisely as was the case in the investigations presented in Table 2, again the *tu quoque*-variant tends to be considered as a reasonable discussion move.

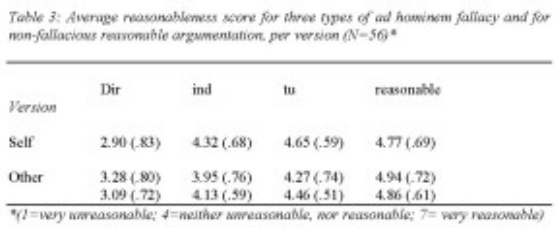


*Table 3: Average reasonableness score for three types of ad hominem fallacy and for non-fallacious reasonable argumentation, per version (N=56)**

Version	Dir	ind	tu	reasonable
Self	2.90 (.83)	4.32 (.68)	4.65 (.59)	4.77 (.69)
Other	3.28 (.80)	3.95 (.76)	4.27 (.74)	4.94 (.72)
	3.09 (.72)	4.13 (.59)	4.46 (.51)	4.86 (.61)

**(1=very unreasonable; 4=neither unreasonable, nor reasonable; 7= very reasonable)*

Table 3

*Table 3: Average reasonableness score for three types of ad hominem fallacy and for non-fallacious reasonable argumentation, per version (N=56)**
**(1=very unreasonable; 4=neither unreasonable, nor reasonable; 7= very reasonable)*

So far as the differences in reasonableness between non-fallacious reasonable argumentation on the one side and fallacious argumentation on the other side are concerned, there are no statistically significant differences between the version Self and the version Other. In both conditions reasonable argumentation is regarded (in an absolute sense) as reasonable, while in both conditions the direct attack and the indirect attack are considered as significantly less reasonable than non-fallacious argumentation (contrast direct attack vs. reasonable argumentation $F(1,42)=84.46$; $p<0.001$; ES=0.31; contrast indirect attack vs. reasonable argumentation $F(1,28)=12.51$; $p<0.001$; ES=0.07). However, both in the condition Self and in the condition Other our subjects do not discriminate between the (un)reasonableness of the *tu quoque*-variant and the (un)reasonableness of reasonable argumentation: $F(1, 23) =2.60$; n.s.).

At least as important for the confirmation of prediction 2 is our finding that there is no statistical significant (main) effect of the independent variable 'condition' in case of the three relevant contrasts between (1) the direct attack and reasonable argumentation: $F(1,32)=3.81$; n.s., (2) the indirect attack and reasonable argumentation: $F(1,25)=.35$; n.s., and the *tu quoque*-variant and reasonable argumentation: $F(1,25)=.24$; n.s., nor a statistically significant interaction between the independent variables 'condition' and 'fallacy/no fallacy' (direct attack: $F(1,25)=.41$; n.s.; indirect attack: $F(1,27)=1.72$; n.s.; *tu quoque*-variant:

F(1,23)=1.17; n.s.).

All these results point in the same direction: ordinary arguers expect others to judge the (un)reasonableness of fallacious and non-fallacious discussion contributions in a similar way as they themselves do.

5. Prediction 3

5.1. Method prediction 3

For testing prediction 3 (ordinary arguers assume – and assume that their interlocutors assume – that discussants who violate the commonly shared rules for critical discussion are unreasonable and can be reproached for being unreasonable; consequently, the notion of 'reasonableness' is by ordinary arguers not only used in a mere ("descriptive") normative sense, but also and for the most part in a prescriptive sense) we will make use again of our consistent findings in the project *Conceptions of Reasonableness*: once again the three variants of the *ad hominem* fallacy were presented to the participants, but this time the discussion fragments did not have to be judged on reasonableness but they had to be rated according to the extent that the antagonist is violating a norm in his (last) contribution to the discussion.

59 subjects (18-19 years old pupils) participated in this experiment. Similar discussion fragments were presented to them as in the previous experiment. In 12 of the 48 fragments the fallacy of the direct attack was committed, in 12 fragments the indirect attack, in 12 fragments the *tu quoque*-variant and in the remaining 12 fragments reasonable argumentation was used. This time the reaction of antagonist B had to be judged on a 7-point, scale ranging from 'absolutely violating a norm' (=1) to 'not at all norm-violating' (=7). The design of this experiment is the same as in the previous experiment: a *repeated measurement design*, combined with a *multiple message design*.

5.2. Results prediction 3

In Table 4 the results are reported.

Table 4: Average scores for the extent of norm violation for three types of ad hominem *fallacy and for non-fallacious reasonable argumentation (N=59)**

Dir	ind	tu	reasonable
2.97 (1.11)	3.64 (1.04)	4.18 (.72)	4.76 (.88)

**(1=absolutely violating a norm; 7= not at all norm-violating)*

Table 4

Table 4: Average scores for the extent of norm violation for three types of ad hominem *fallacy and for non-fallacious reasonable argumentation (N=59)**
**(1=absolutely violating a norm; 7= not at all norm-violating)*

The familiar patterns, derived from Table 2, are again present in Table 4: the direct attack is judged as the most norm-violating move, next the indirect attack, and finally the *tu quoque*-variant; this last variant is considered as a discussion move that tends to be the qualified as 'no norm violating'. As expected, the non-fallacious discussion contributions are rated as moves that can be regarded as non-norm-violating.Each of the three *ad hominem* fallacies is judged in a statistically significant sense as more rule violating compared with non-fallacious reasonable argumentation. This holds even in the case of the *tu quoque* variant (direct attack: $F(1,72)=65.73$; $p<0.000$; ES=.27; indirect attack: $F(1,58)=31.80$; $p<0.000$; ES=.13; *tu quoque* variant: $F(1,28)=6.03$; $p<0.02$; ES=.04). Nor surprisingly in light of the data in Table 2, there are big differences between the three types of fallacies regarding the extent to which they are regarded as norm-violating ($F(2, 57) =15.03$; $p<0.000$; ES= .11). According to the judgment of our participants, in case of the direct attack norms are much more violated compared with the other two types of fallacy ($F(1,57)=23.41$; $p<0.001$); the indirect attack in turn is considered as a more norm-violating move than the *tu quoque* variant ($F(1,57)=5.92$; $p<0.02$).

In sum, discussion moves that are considered as unreasonable by our participants (moves that are also unreasonable in a theoretical sense according to the pragma-dialectical standards) are judged as norm-violating, while moves that are assessed as reasonable by our participants (moves that are also reasonable in a theoretical sense) are considered as not norm-violating.

6. Conclusion

The paradigmatic division between dialectical and rhetorical approaches to argumentative discourse can be bridged by introducing the theoretical concept of strategic maneuvering, as proposed in the extended pragma-dialectical theory of argumentation. This makes it possible to integrate rhetorical insights into a dialectical framework of analysis. Strategic maneuvering refers to the deliberate efforts arguers make to reconcile their aiming for rhetorical effectiveness with maintaining dialectical standards of reasonableness. If one interprets this analytical model in an empirical sense, three rather vital claims can be derived. We have shown in this article that these claims are strongly supported by the

results of our experiments. (1) Ordinary arguers are, at least to a certain extent, aware of their dialectical obligations; they know, at least at a pre-theoretical level, which contributions to the discussion are in accordance with the rules for critical discussion and are thus to be regarded as reasonable, and which contributions have to be considered as violations of these dialectical rules, in other words: which moves are fallacious and thus unreasonable. (2) Ordinary arguers assume that the other party in the discussion commit themselves to the same kind of dialectical obligations as they themselves do. (3) Ordinary arguers assume – and assume that their interlocutors assume – that discussion contributions that violate the norms incorporated in the rules for critical discussion are unreasonable and that interlocutors who violate these commonly shared rules can be held accountable for being unreasonable.

NOTES

[i] For our use of the terms *effectiveness* and *persuasiveness* and our use of the terms *rationality* and *reasonableness*, see van Eemeren, 2010: 39 and 29, respectively.

[ii] With the exception of the logical variant of the *ad consequentiam* fallacy, all differences in reasonableness between a particular fallacy and its non-fallacious counterpart are statistically significant – ordinary arguers not very often regard the *reductio ad absurdum* as a type of sound argumentation, just as they hardly see that the fallacy that copies this sound argumentation (namely the logical variant of the *argumentum ad consequentiam*) is an obvious fallacy. In some cases in Table 1 no effect size is reported – in those cases ES could not be computed, due to the specific characteristics of the chosen design. Moreover, from the data presented in Table 1 (and equally in Table 2) one may not infer that fallacies such as the *tu quoque*-variant are regarded as reasonable moves. In Table 1 we abstracted from the specific discussion context in which the fallacies were offered to the participants, but in a scientific discussion context the *tu quoque* fallacy is invariably judged as an unreasonable move.

[iii] Notice that there is an enormous range in the judged unreasonableness of the various fallacies: the physical variant of the *argumentum ad baculum*, for example, is regarded as an absolute unreasonable move, while the *tu quoque* variant of the *ad hominem* fallacy tends to be considered as a reasonable move (provided we abstract from the specific discussion contexts in which this fallacy was presented). Such data make sense: threatening the other party in the discussion with brute physical violence is the example *par excellence* of irrational,

unreasonable behavior, while committing a *tu quoque* fallacy has at least in some discussion contexts the appearance of being reasonable. Serious participants in a conversation may be expected to show some consistency between their (past and present) words and deeds.

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