

EDITED INTERVIEW TRANSCRIPT

Interviewee: Professor Douglas Walton
Interviewer: Conny Rhode
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Editorial (by Mary Leng and Conny Rhode)

Douglas Walton is well known for a vast body of work on argumentation. He has published over fifty books and over three hundred articles on argumentation in dialogue, in the process greatly illuminating the nature and status of fallacies, describing the functions of different types of dialogue (such as persuasion, deliberation, or inquiry), and distinguishing dozens of schemata that distil the structure of certain forms of argument (e.g. argument from expert opinion), among various other issues in Informal Logic. Applying this work to both Law and Computer Science, Douglas Walton has helped better understand legal and computational reasoning, as well as to conduct such reasoning more effectively. His recent monograph (*Burden of Proof, Presumption and Argumentation*, CUP 2014), for instance, analyses presumptions and burdens of proof across computational, legal and other argumentative contexts. Professor Walton is Distinguished Research Fellow at the University of Windsor's Centre for Research in Reasoning, Argumentation and Rhetoric. Conny Rhode caught up with him at the University of Granada during the recent conference on *Presumptions, Presumptive Inferences and Burden of Proof*.

Interview

CR: Professor Walton, thank you for agreeing to this interview. First of all, how did you initially become interested in the study of argumentation?

DW: Logic was my strongest subject in graduate school; so when I moved to my first teaching job I was asked to teach the Logic classes, which included both Formal and Informal Logic. It was easy to teach Formal Logic, because it's a well-structured subject, but then I had to struggle with teaching the fallacies and the informal part. I was working with my thesis supervisor at that time, John Woods, and having read Hamblin's book, *Fallacies* (1970), I suggested to him that this was really the only good recent and up-to-date book on the subject. So we had the idea that it would be a good to do some work in this area, as it was greatly understudied at the time.

CR: One of your key contributions has been your own work on fallacies. For the benefit of readers, could you introduce that work just briefly?

DW: The problem that I faced in teaching fallacies was giving students some kind of structural guidelines. The assumption at that time was that these so-called fallacies were wrong or erroneous inferences. But as I started to study them, I realized there needed to be some kind of logical structure there. (This was actually before the advent of defeasible reasoning.) I realized from the teaching of the fallacies that it needed to be better recognized that they were reasonable arguments

in many instances. For example, argument from expert opinion is associated with the fallacy of appeal to authority – and you quickly realize this could be a very reasonable form of argument in many instances. I think the climate of opinion was changing at that time. Before that time there was a sort of positivist mentality, even amongst the students, that science was the ultimate criterion of everything. Of course in scientific method you were not supposed to not take anything on authority but to use experimental data and so forth. But the climate gradually changed, and I think now everybody realises now that, for example in law, argument from expert opinion is one of the most important sources of evidence. So the problem was that, if these fallacies could sometimes be used as reasonable arguments, how do we tell the difference between the one which is reasonable and the one which is fallacious? That was what motivated me.

CR: How exactly does this work on fallacies tie in with your work on different types of dialogue and on schemes representing important forms of argument?

DW: Well, the dialogues (used alongside the schemes) provided needed structure. Again to come back to the example of argument from expert opinion, the dialogues are actually implicit in the schemes, because when you're confronted with an argument, let's say, from expert opinion, that the problem is to determine which kinds of reactions to that argument are appropriate, and which are inappropriate. So you can see already the dialogue structure. The proponent is putting the argument forward, and she might invoke her own authority as an expert against challenges, which can be fallacious. On the other hand it could be that the other party overlooks some question that needs to be asked – maybe this person isn't an expert, or maybe the other person just endorses it uncritically and says 'Okay, it's an expert opinion anyhow, therefore I fully accept it.' Both of those responses are problematic - they are associated with fallacies. In order to model such phenomena it's clear that you need to have some sort of dialectical structure. But the problem is that the dialectical structure containing the types of dialogue is complex and not widely studied or understood so far, and therefore it's hard for the students to apply it as a tool. So that's been one of the challenges. But I have been trying to find some simple techniques that students can use to bring these dialogue notions (such as speech act, replying appropriately, checking the arguer's commitments, and so forth) into play. The use of dialogue structures was initially meant to be used to model informal fallacies. But over time it went well beyond that, and it has been used for all kinds of things. With the adoption of argumentation methods in AI, more and more people are recognizing formal dialogue structures as a legitimate area of formal investigation in its own right.

CR: I find these types of dialogue very interesting. Could you just explain a little further how they relate to each other – are they actually mutually exclusive, even though not necessarily jointly exhaustive? And how many types are there?

DW: At first I started using the dialogues in a very practical way as the need for them arose out of the study of fallacies. But along the way I realized that in order to deal with argumentation problems you had to postulate certain types of dialogue, such as deliberation and negotiation, in addition to persuasion dialogue. Hamblin did not try to systematically draw distinctions between different types of dialogue, and the formal models of dialogue he built seem to be of the persuasion dialogue type. The persuasion dialogue has always had priority, because you can see in Greek philosophy, for example in Plato and Aristotle, that it appears to be the foremost framework of dialectical

argumentation we began with as representing rational argumentation, and that tradition persisted for over two thousand years. Recently Erik Krabbe has built a formal model of persuasion dialogue representing the central features of Aristotelian dialectic. But once you start to study many examples of real arguments of this kind, you realise before long that many of the traditional informal fallacies can only be analyzed by taking more than one type of dialogue into account. When Erik and I wrote the *Commitment in Dialogue* book we built our formal model of persuasion dialogue, a platform that enabled us to begin to systematise and classify the types and subtypes of dialogue in an orderly manner. Since that time other types of dialogue have been shown to be increasingly important, such as examination dialogue, which was already known to Aristotle. The best known modern example would be a cross-examination in a trial. People now are very familiar with that. But prior to Hamblin and *Commitment in Dialogue* we had no real way of modelling the relationship of examination dialogue to persuasion dialogue. But since that time, different subtypes such as examination dialogue came to be studied in greater depth. But the basic typology really hasn't changed very much since then. There's no particular reason for that. I never claimed it was complete. I always just thought these were the main ones that seemed to be important, based on my having studied and written about and analyzed many thousands of examples over 39 years of teaching logic courses to undergraduates.

When I first started teaching informal logic, the students always asked 'Give us an example'; so that was my method from there on, I always collected examples and used them in my classes. And in all the books that I have written you see they are full of these examples. I wish I would have numbered the examples systematically or even collected them in a database, because some people say 'Well how can you say that these types of arguments and so-called fallacies are very common, because there is no empirical basis for it?' But this field of study does have an empirical component, because after you have collected and analyzed so many examples you see patterns, for example, you see how the problems arise out of matching the schemes to the particular examples. This use of real examples is the basis of the methodology of informal logic, making it an applied field, despite its reputation as resting exclusively on normative argumentation models formulated at a high level of abstraction.

CR: Well at that point I'm glad I have not misinterpreted your work in thinking that the types are actually mutually exclusive, and they have subtypes, and in a concrete dialogue we might find several types instantiated, because they're ideal types after all.

DW: Yes, the types are at a high level of abstraction, that's part of the problem. Really the whole problem in the field, as in many fields, is applying these very abstract, formal structures. You can prove that the model is consistent and complete and so on, but it's something else to actually apply it to real examples, which of course as we all know are incredibly complex sometimes, and they have all kinds of Gricean implicatures. The problem is you have to fill in implicit premises, the conclusion may not be explicit, and so on. So there is a lot of work to be done in bridging the gap between the abstract formal theory at a high level of abstraction and real examples of arguments from natural language from natural language databases that are complex and constantly changing.

CR: I see. There was something I wanted to ask you. Would you classify legal dialogues in a courtroom debate as persuasion dialogues or as deliberation dialogues?

DW: In the common law system of trials the trial proceeding is structured. It has stages, and it's clear to me that it does represent a type of persuasion dialogue. I think the clue to this is the basic idea of the burden of persuasion – what most people call the burden of proof. Essentially the structure of a legal trial is that you have someone who brings forward a lawsuit, maybe claiming that they were harmed by some action attributed to the other party for example, and so then you have always two sides to the dispute. It's a more complex type of persuasion dialogue because you have a third party, who could be the judge or the jury or some combination of those two – you have some evaluator who is the third party. Then you have the two sides: in a criminal case you have the prosecution and the defence, so the burden of persuasion so-called is on the prosecution, and all the defence has to do is find enough weaknesses so that the other side doesn't meet its burden of persuasion. So it's really a classic case of persuasion dialogue I would say. The central structure of the argumentation used in it fits persuasion dialogue quite exactly.

CR: Okay. I was asking because my own doubt was that the persuasion dialogue may be embedded within a larger deliberation as to what sentence to give, if any – what action to take, which is the goal of deliberation dialogue. So that a criminal trial would seem to be a deliberation dialogue with an embedded persuasion dialogue, although the embedded persuasion dialogue takes up almost the entirety of the trial. Hence my question.

DW: Lawyers generally describe the trial itself as 'fact-finding'. The law is already there, so that gives you your rules of inference: laws and general rules. And the jury, in the case of a jury trial, is often called 'the fact finder', so it's just a kind of collection of propositions (I guess we would call it) that are called 'the facts' or assumed to be the facts in the case. You know, *was he there at the time of the crime?*, *what kind of clothes was he wearing?*, and so on. So then ultimately the judge, let's say, has to combine the rules of law and the facts, and then some conclusion will come out at the back in the criminal case, either guilty or not guilty. Then of course there's a sentencing stage, which is a distinctive stage in its own right, which is essentially a deliberation, because it's about how long a sentence should this person get, or what would be the appropriate penalty. That's the hardest part of the whole methodology of using the types of dialogue: that there are shifts from one type of dialogue to another. This is a weakness of the theory, and at the same time it's a strength.

CR: I was just thinking, *where's the weakness?* It only seems a strength, because it seems to accommodate so much.

DW: Yes, it's a powerful theory, but the problem in dealing with dialectical shifts in a particular case is: how do you know when a shift has occurred? Suppose we are having a political deliberation on whether to build a new dam. It's a deliberation: should we take this action or not? But then persuasion dialogue comes in immediately, or even inquiry dialogue. In order to make an intelligent decision there is an enormous amount of factual data that you have to bring in – engineers, all kinds of specialists, and especially these days, specialists regarding the environmental consequences of building a dam, make their reports and give their advice. Evaluating this information and advice, and communicating with the experts, may in itself be a difficult task requiring argumentation skills. The problem is that, in a lot of cases it doesn't even matter too much that there has been a shift to a different type of dialogue, but in some cases it can be quite problematic, because a type of

argument that might be reasonable in one framework of dialogues might be quite unreasonable in another. For example, persuasion dialogue is fairly adversarial, a kind of contest of opinions, whereas deliberation needs to be more collaborative. You have to go along with the group and give up a lot of your favourite interests and views in order for it to be successful. It won't work if all are just continually attacking each other's opinions, you know, in the way you would in a persuasion dialogue. Too much adversarial argument is a problem in the setting of a deliberation dialogue. Critics, I think, have often pointed out that this is a problem. It makes the task of analyzing and evaluating argumentation more complex because you have these shifts, especially when their importance is not understood, appreciated, or taken into account.

CR: Aside from legal argumentation that can be analyzed in this way, your theory has also contributed quite significantly to AI. One major model of argumentation that you've developed is Carneades. Could you perhaps quickly explain what the Carneades model is and how it facilitates argumentation in Computer Science?

DW: There are several AI systems of which Carneades is one. It uses argumentation schemes, so this provides a way of identifying arguments, and it's all based on the idea of the user being able to input an argument diagram. Once the user has done this and inputted some account of the structure of the argument then Carneades can automatically evaluate the argument. It can also do another thing: it can construct arguments. It has a knowledge base of propositions and it can draw from that and add in implicit premises and other information that is needed. How to describe this in a simple way? You have to put in one proposition designated as the conclusion to be proved in the diagram, and then there will be some premises and other arguments connected to that. And let's say that it's not a valid argument, that it has certain parts missing that would be required to get you from the premises already in there to the ultimate conclusion. Well, Carneades can then search around in the knowledge base and see if there are propositions in it that could be plugged into the diagram so it would complete the sequence from those premises to the conclusion. So it can both evaluate arguments and also construct arguments. And in the history of this subject, of Argumentation, or Logic, we've always concentrated at evaluating arguments as the central skill. But in rhetoric, of course, we are very interested in the idea of inventing new arguments – what is sometimes called 'argument invention', or, in computing, 'argument construction'. Carneades can do both of those.

CR: What other areas (aside from legal argumentation and AI) do you see as within the scope of the application of your theories?

DW: I would like to see it actually applied to some case studies of scientific argumentation, especially with that seventh type of dialogue, the discovery dialogue. Some initial work has been done on that, but I think the area would allow for a lot more attention. I would say explaining the idea of creativity in scientific invention using formal argumentation models would be a suitable area of investigation within the scope of application of my theories. There has been some work on negotiation dialogue. Indeed, in the field of business and related fields there is already a huge literature on negotiation. But I would like to see some examples of negotiation treated as well, to see whether they could be illuminated or modelled in a useful way, using argumentation tools.

One particular area that I have written on but that has not been extensively investigated is the

application of argumentation tools, such as argument diagramming, argumentation schemes, and argument evaluation tools available from artificial intelligence to cases of conflicting expert testimony on forensic evidence. One such case that I studied was an example where there was a conflict of opinions about whether a portrait of a young woman in a Renaissance dress sold at auction could be attributed to Leonardo da Vinci. The art critics were divided, but forensic evidence came in from a laboratory in Paris where an expert had been able to examine the painting by probing beneath the surface using sophisticated scientific visualization tools. Although the claim had initially been dismissed by the majority of leading art experts this new forensic evidence shifted the burden of proof onto the side of the skeptics. Forensic investigations were carried out, and evidence was collected by art history experts and scientific experts. The analysis of the argumentation in my paper built an analysis of the interlocking argumentation in the case to evaluate the network of evidence pro and con.

I see tackling these sorts of cases where there is a mass of conflicting argument based on expert testimony and scientific evidence as within the scope of the application of my theories.

CR: You said that in deliberation dialogue, at least as far as you argue, there is no burden of proof.

DW: Kind of a shocking claim to make to a lot of people!

CR: I didn't find it that surprising to be honest; because I always thought of a burden of proof as occurring in a persuasion dialogue that may be embedded in a deliberation dialogue (and hence not be in the deliberation dialogue as such).

DW. I agree. People just seem to assume that burden of proof must apply in a deliberation – especially philosophers, who try to see everything in a rational way, and to make it into something rational. In philosophy we always teach our students right from the beginning: 'yes, you have your own opinion, but in philosophy you are obliged to give some evidence to support your opinion'. Adopting this view is very difficult for some people when they first start to study analytical philosophy. But in philosophy we expect that if someone makes a claim, if questioned they need to back it up with an argument. We just assume that it's part of philosophical rationality that if somebody asks you 'well how can you prove that?' that's a legitimate request, and if you fail to respond appropriately you have just somehow moved out of philosophy and into something else. So I think that philosophers take the notion of burden of proof – just as lawyers do actually, and judges – very seriously. They assume it is required for all rational argumentation. So the idea of engaging in deliberation without a burden of proof somehow just seems to jar them. But you are quite right, I think once you appreciate the dialectical shift from persuasion dialogue to deliberation, and realise that in deliberation you are quite commonly having to shift like that in order to, you know, play more of a conciliatory and fact-finding role, it's a lot easier to accept.

CR: The burden of proof seems to run through your work like a thread, recurring in your discussion of argumentation schemes, types of dialogue, it crops up everywhere it seems, and is also the subject of your recent (2014) book. To conclude this interview, could you maybe say a thing or two about what sort of results you obtained from your research into the burden of proof?

DW: Yes, I think that this recognition of the importance of burden of proof started from the fallacies, where I was studying fallacies like arguing in a circle – begging the question. There I had the idea that it was associated with burden of proof somehow, because if you're going to prove B from A but also prove A from B, you're not really going anywhere, and so you're not fulfilling a burden of proof so to speak. Proof is finding some independent proposition or set of propositions that you can use to support rational acceptance of the other thing. If you are going in a circle, then you are defeating that. So that was one of the fallacies where it struck me that the notion of burden of proof is important to grasp the nature of the fallacy. And then there are other fallacies connected to burden of proof. Another famous fallacy is the argument from ignorance – meaning that you haven't been able to disprove it, therefore it must be true. Take the Roman medals example: there is no evidence that medals were given to Roman soldiers posthumously, and so historians, because they've studied this a lot, say this is pretty good evidence that medals were not given to Roman soldiers posthumously. If there were any cases of such wards it would be known from the tombstones and grave markers and memorials of battles. But the historians found nothing like that. So it seems to be quite a reasonable argument that the Romans didn't do this. But of course that's just negative evidence, an argument from lack of evidence. It might be thought, therefore, that it is a fallacious argument from ignorance. But sometimes, as in this instance, it can be a reasonable argument if you have conducted a good search and found nothing. In this case it's a reasonable argument because all these historians who have studied the Ancient world have studied this quite thoroughly. When this hypothesis was announced, a lot of historians would be looking at this, and you can be pretty sure that if they knew a counter-example, someone would have published it, and it would have been pretty exciting news. So even though it's a negative argument based only on lack of evidence, it does meet a burden of proof, because there was a comprehensive search which turned up nothing, a negative finding. I actually wrote a book on that fallacy, argument from ignorance, a very important fallacy, and a lot of that book was concerned with burden of proof too. So it kept popping up and up again with different fallacies, this notion of burden of proof.