

ISSA Proceedings 2010 - Using Argument Schemes As A Method Of Informal Logic



The method of using argument schemes for evaluating natural language arguments (NLA's) is based on two assumptions [1]. The first assumption is that there are, if not 'natural' kinds of NLA's, at least sortings of arguments into kinds that can be justified on epistemological or pragmatic grounds. The identity conditions of an argument

kind can be represented in an abstract structure called an *argument scheme*. The second assumption is that with each identifiable kind of argument there is an associated standard that good arguments of that kind should meet. Accordingly, to use the *Argument Scheme Method* (or *AS Method*) of evaluating NLA's one begins by finding out to what kind a given NLA belongs; this can be done by determining which of the schemes it is an instance of. Having done that one proceeds to evaluate the NLA by determining how well it measures up to the standard associated with the kind to which it belongs.

1. Argument Schemes in the Logic Literature.

Schemes, although not known by that name, are familiar from the history of logic. Considering only the last hundred years we have, for example, H. W. B. Joseph at the beginning of the twentieth century describing analogical arguments as those that take us "from a certain ascertained resemblance between one thing and another (or others) to a further resemblance", schematically expressed like this: "because a and b are x , and a is y , $\therefore b$ is y " (1916: 538). Joseph wondered whether analogical arguments have any logical value. "Can we give any rules by which to judge their value in a given case?" he asked (1916: 539), and then went on to review some of the familiar criteria for good analogical arguments. Later, in the 1930's, Cohen and Nagel (1934: 286) outlined the Argument Based on Sampling as having this structure:

A certain proportion (r' per cent) of the sample P have the character q .

The P 's are a fair sample of a large collection M .

Hence, probably and approximately, the same proportion (r' per cent) of the

collection M have the character q .

Cohen and Nagel too give some useful rules for evaluating such arguments relating to how the sample was obtained, etc. The tradition of identifying argument schemes for kinds of arguments that do not owe their strength to formal validity, and attaching a set of rules or guidelines for their evaluation, continued with the first edition of Copi's *Introduction to Logic* in 1953 and saw considerable development in Wesley Salmon's *Logic* ten years later in 1963.**[ii]** As an example, look at Salmon's characterization of the *ad hominem* argument or, as he calls it, the argument against the man.

The vast majority of statements made by x concerning subject S are false
 p is a statement made by x concerning subject S
 $\therefore p$ is false. (1963, p. 68)

All these examples of argument schemes come from logic books that take the articulation of deductive standards and methods to be the first goal of logic. So, in Salmon's work, and that of many others, the introduction of schemes may be seen as an attempt to do something for "non-deductive arguments" along the lines of what logical form can do for "deductive arguments".

Schemes have also been used to characterize bad arguments, like fallacies. Consider the conditions for the Strawman Fallacy offered by Johnson and Blair (1983, p.74):

M attributes to N the view or position, Q
 N 's position is not Q , but a different one, R
 M criticizes Q as though it were the view or position actually held by N .

Here ' M ' and ' N ' are person variables and ' Q ' and ' R ' are propositional variables. The idea is that the Strawman Fallacy is a kind of argument that fits the given pattern and that all instances of the pattern (or scheme) are bad arguments. Other patterns of bad arguments like the fallacies of *ad hominem* (p. 79) and improper appeal to authority (p. 155) can also be captured by fallacy schemes. However, since there are legitimate appeals to authority as well as justified uses of *ad hominem* arguments, it is also possible to see many of the fallacies not as bad kinds of arguments but as bad instance of kinds of arguments that can have both good and bad instances. (Good and bad baseball games are both of the kind, *baseball game*; good and bad tomatoes are both of the kind, *tomato*). Even the

strawman argument need not be bad if, for example, Q is entailed by R because then any doubt attaching to Q will transfer to R. Viewed this way, our attention is shifted from identifying fallacies to identifying different kinds of arguments and giving criteria for distinguishing good from bad members of the kind. To identify the kinds is to give the necessary and sufficient conditions for membership in each kind, and the expression of these conditions constitute an argument scheme.

The AS Method admits of a number of variations depending on how schemes are defined and on the nature of the larger theoretical framework which embraces them. In this essay a method of using schemes recently developed by Douglas Walton is considered. Given his pluralism about dialogue types we have to discern the role of argument schemes inside this broader dialectical model.

2. Walton's Approach to Argument Schemes.

In a series of articles and books including *Argumentation Schemes for Presumptive Reasoning* (1996), *Fundamentals of Critical Argumentation* (2006), Walton has developed a method of NLA-evaluation based on the use of argument schemes. The following overview of his theory mainly follows these two books. Speaking of the evaluation of NLA's, and the possibility that they can be in some sense "correct or reasonable", Walton writes,

Although the term valid does not seem to be quite the right word to use with many of these argumentation schemes, still, when they are rightly or appropriately used, it appears that they are meeting some kind of *standard of correctness of use* [my stress]. What is important to come to know is what this standard is, for the most common and widely used schemes especially, and how each of the schemes can be tested against this standard. (Walton 1996, p.1)

The standard Walton is speaking of is a *standard of correctness of use*. It is not immediately clear what the compass of this standard is, but I will assume that it includes a standard of premiss sufficiency since arguments could not be said to be used correctly (in their primary function) unless they were premiss sufficient. Hence, in what follows, I will explore Walton's views on the correct use of argument schemes in so far as they touch on the question of premiss sufficiency. Walton's approach brings together several key ideas taken from logic and dialogue theory. His focus is on arguments that are neither deductive nor inductive. An overview of what is involved is summarized in the following paragraph.

These arguments are inherently *presumptive* and *defeasible* Each of the forms of argument . . . is used as a *presumptive argument* in dialogue that carries a weight of *plausibility*. If the respondent accepts the premises then that gives him *a good reason* to also accept the conclusion. But it does not mean that the respondent should accept the conclusion uncritically. Matching each form of argument is a set of appropriate *critical questions* to ask. . . . These forms of inference are called *argumentation schemes* and they represent many common types of argumentation that are familiar in everyday conversations. They need to be evaluated in a *context of dialogue*. They are used to *shift a burden of proof* to one side or the other in a dialogue and need to be evaluated differently at different *stages of a dialogue*. (Walton 2006, p. 84)

Here I have taken the liberty of italicizing the key concepts that we must understand in order to be able to appreciate Walton's method of argument evaluation. These concepts, which can be seen as falling into three groups, are partly explained by their interconnections. One group consists of 'presumption', 'defeasible' and 'plausible'; another group has 'dialogue', 'shifting a burden of proof' and 'stage of dialogue'. The third group, which connects with the other two, includes the concepts of 'argument scheme' and 'critical question'.

GROUP A: The concepts in the first group presuppose the distinction between monotonic and non-monotonic reasoning. Monotonic reasoning is of the kind that if it is premiss sufficient, then no additional information will change the fact that it is premiss sufficient. Valid deductive reasoning, and no other kind, has this character. By contrast, non-monotonic reasoning is such that new information (new premises included in an argument) can change the degree of an argument's premiss sufficiency. New premises may make an argument illatively stronger or weaker. In discussion of non-monotonic reasoning, it is usually the lessening of premiss sufficiency that is illustrated since that most dramatically makes a contrast with deductive reasoning. Walton divides non-monotonic reasoning into two kinds, inductive and plausible reasoning, and contrasts them as follows:

The basic difference between them is that inductive reasoning is based on gathering positive evidence that can . . . be counted or processed in some numerical way by statistical methods. Plausible argumentation is more practical in nature and is based on presumptions about the way things normally go, the way things normally appear, or practices that expedite ways of working together to perform smooth and efficient collaborative actions. (Walton 2006, pp. 73-74)

There is an interesting issue here about whether there is any difference at all between presumptive and plausible reasoning or whether they are the same thing. [iii] Walton seems to lean in the direction of thinking that *presumption* is the fundamental concept. Plausible reasoning gives us “some reason to think a proposition is true, provided [we] have no better reason to think it is false” (2006, p. 74), but such reasoning, according to Walton, is based on generalizations that are presumptions about the way things normally go; hence, the more basic concept here is that of a presumption. In Walton’s view the conclusions of presumptive reasoning – they are most often singular propositions – are also presumptions because they are inferred from generalizations that are presumptions (Walton 2006, pp. 72-74). Nicholas Rescher seems to see the relationship between the presumptive and the plausible as being the other way around. He refers to a basic principle that “Presumptions favour the most plausible of rival alternatives – when indeed there is one. This alternative will always stand until set aside (by the entry of another, yet more plausible, presumption)” (Rescher 1977, p. 38). So, for Rescher, the concept of plausibility is analytically basic to the concept of presumption, since presumptions are identified as being the *most plausible* of a number of plausible propositions. For the present purposes, it doesn’t matter greatly which of the two views we adopt, Walton’s or Rescher’s, but we should mark this area as an unsettled part of the meta-theory of non-formal reasoning. The important point for now is that the kind of reasoning Walton is discussing is, like inductive reasoning, defeasible; that is, the conclusion reached is defeasible because the generalization it depends on (the major premiss) has exceptions.

A defeasible generalization, in contrast to an absolute universal generalization, is one that is subject to exceptions and that is defeated (defaults) in a case where one of the exceptions occurs. Defeasible generalizations often contain expressions like the word ‘generally,’ that indicate that the generalization has exceptions. (Walton et al. 2008, pp. 190n)

That exceptions are possible means that they can arise, and when they do arise they constitute new information which runs against the current of the generalization without contradicting it. For instance, that Goneril doesn’t love her father may be surprising, but it is not inconsistent with the generalization that, typically, children love their parents.

GROUP B: Of central importance to Walton’s approach to NLA evaluation is the

concept of a dialogue, a conventionalized framework in which assertions and arguments can be made and questions can be asked. In Walton's view there are different types of dialogues and NLA's may be analyzed as occurring in one or other of the dialogue types. These types include persuasion dialogue, inquiry dialogue, negotiation dialogue, information-seeking dialogue, deliberation dialogue and eristic dialogue (Walton 2006, p. 183). The dialogues are individuated on the basis of having different goals and different rules (Walton 2006, p. 178). Of importance here is that the standard for what makes the use of an argument of a kind a good one will depend on the standards of the dialogue type in which it finds itself. The standards for persuasion dialogue, for example, are given by a set of ten rules (Walton 2006, p. 177).

To have a burden of proof is to have to give a proof, if asked to do so. In the evaluation of NLA's, 'proof' must be taken in a modest sense, demanding something less than deductive certainty. In these contexts a proof should be considered as something akin to 'a good reason'. If a statement has a burden of proof attached to it, then whoever makes the statement must provide a good reason for it or withdraw the statement (Walton 2006, p. 8). Having successfully given the proof demanded, one no longer has a burden with regard to that statement. When burdens of proof are thus discharged in dialogues, they shift to the other dialoguer who must then decide either to accept the statement or make a new argument - a new 'proof' - that the statement is not acceptable. An important function of the burden of proof is that it provides a practical solution to the problem of argumentation going on forever: eventually there will come a point where one of the parties can no longer legitimately shift the burden back to the other side (Walton 1996, p. 24).

Dialogues have stages, Walton says. He may be referring to the stages of a critical discussion specified by van Eemeren and Grootendorst (1992, p. 35), but their analysis is not furthered by Walton. He is more concerned to point out that an argument placed later in the sequence of moves of a dialogue will have more history - a more developed context, more things to refer back to - than an argument that occurs near the beginning of the dialogue, and this difference may be a factor in the interpretation and evaluation of the argument.

GROUP C: *Argument schemes* "represent many common types of argumentation that are familiar in everyday conversations," says Walton (2006, p. 84). They are like logical forms of propositional logic in that they are not themselves arguments,

but abstract structures that can have an infinite number of substitution instances that are arguments. The substituands in argument schemes are just the same as those in logical forms: names of individuals, properties, relations and propositions. What sets schemes apart from the better-known logical forms is the nature of the logical constants. In the schemes for presumptive arguments the important constants are, 'in general', 'typically', 'normally', and other non-truth-functional operators such as 'is similar to', 'asserts that', and 'can be classified as'. Walton has pressed the analogy with logical form further holding that, like valid logical forms, "argumentation schemes can best be revealed as normatively binding kinds of reasoning" (1996, p. 1) that give the addressee a good reason to accept the conclusion provisionally. An example, slightly amended, of one of his argumentation schemes is this.

Argument from analogy

Case C1 is similar to case C2 in respects R1, R2, . . .

A is true (false) in case C1

Therefore, A is true (false) in case C2. (Walton 1996, p. 77)

What we may call the all-in-all, or all-things-considered, evaluation of an argument requires us to go beyond the initial step of identifying it as instantiating a particular argumentation scheme. Being an instance of a scheme only confers *prima facie* support to conclusions. To determine whether an argument meets the standard for the argument kind, Walton affiliates with each argument scheme its own set of *critical questions* designed to guide an interlocutor in deciding whether the argument meets the standard for the argument kind. Since presumptive inferences are defeasible, an argument cannot receive its final evaluation until it is decided whether, on a given occasion, there is any information available to an argument assessor that will defeat the inference from the premises to the conclusion. The final, all-things-considered evaluation of the argument awaits the answers to the critical questions. For the Argument from Analogy, Walton introduces these questions.

Q1. Are C1 and C2 similar in respects R1, R2, . . . ? [P]

Q2. Is A true in C1? [P]

Q3. Are there differences between C1 and C2 that undermine the force of the similarity? [S]

Q4. Is there some other case C3 that is similar to C1, but in which A is false. [D] (Walton 1996, p. 79)

I have followed each of the questions with a letter in brackets. The letters indicate an attempt to classify the kinds of critical questions associated with argument schemes. ‘P’ indicates a question about premiss acceptability, ‘S’ a question about premiss sufficiency, and ‘D’ a question about possible defeaters. In Walton’s 1996 list of 25 argument schemes[iv] there are also kinds of questions not associated with the scheme for analogical arguments: K-questions about the nature of conclusions, for example, and a catch-all of left-over issues dealt with by what we can call X-questions. As for the four questions associated with the scheme for analogical arguments, the first two are clearly about the acceptability of the premises. The third question might be viewed either as a question about sufficiency – do the similarities outweigh the dissimilarities? – or as a question about defeasibility: have relevant dissimilarities that cancel the inference been overlooked? The last question raises the possibility that another analogy, perhaps a better fit with the target situation, does not lead to the targeted conclusion. If there was such another analogy that would undermine the support for the conclusion. In other words, it is a D-question, putting the assessor on the lookout for inference-defeating pieces of information.

With this discussion of the key concepts in Walton’s use of arguments schemes behind us, we are now in a position to outline the steps to be taken in employing his version of the AS Method.

| NLA Evaluation by Walton’s Method of Argument Schemes | | |
|---|-------------|---|
| 0 | Preparation | The target argument {P}/K is presented in standard form |
| 1 | Step 1 | Identify the relevant standard by identifying the dialogue-kind in which {P}/K occurs |
| 2 | Step 2 | Identify the argument scheme of which {P}/K is an instance |
| 3 | Step 3 | Ask the critical questions associated with the scheme |
| 4 | Step 4 | Evaluate {P}/K on the basis of answers given to the critical questions in light of the standards of the relevant dialogue type. |

3. Characterization and Adequacy of the AS Method.

(A) *Characterization of the AS Method.* As a method for evaluating NLA’s, how does the AS Method compare with other methods? First we may observe that it is a *direct* method in that it evaluates arguments without going through some other argument, as does the method of logical analogies, for example, or the *a fortiori* method which considers the comparative strengths of arguments. Moreover, the AS Method it is a *bipolar* method that can issue both the verdicts “good argument” and “bad argument.” Not all methods are like that; for instance, some no-fallacy methods can only say that an argument is bad, never that it is good, and others like the method of formal logic can say that an argument is good but

never that it is bad (because of the asymmetry thesis). Finally, the AS Method is a *textured* method, meaning that it can result in judgments placed between the poles of very good and very bad arguments: judgments that an argument is “pretty good but not very good”, “middling good”, “bad but not absolutely bad”, are possible depending on how well the argument does in light of the associated critical questions. Some of these questions it may deal with satisfactorily, others with difficulty resulting in a qualified judgment. Some methods of NLA-evaluation are not textured methods, for example the method of using formal logic.

(B) *Adequacy of the AS Method*. According to Govier,

An account of argument cogency is a *reliable* one if it can be used by different people to get the same result. . . . And it is *efficient* if it can be applied in a fairly uncumbersome way. (Govier 1999, pp. 108 – 09)

We can take these ideas and adapt them to the notion of the *adequacy of a method* for evaluating NLA's. The adequacy of a method will be a function of two of the criteria mentioned by Govier, *reliability* and *efficiency*, to which we may add a third criterion, the *scope* of the method.

Reliability. By a method's reliability is meant, first, how objectively reliable it is. A sonic reader, for example, may be a highly reliable method of finding water underground whereas water-witching appears to be no more than 50% reliable. The objective reliability of the AS Method will depend on how well the inventory of schemes fits the arguments to be studied. Should we use the inventory of 15, 25 or 60 argument schemes? If our stock of schemes is too short, then some of the NLA's we may meet won't fit; if it is too long, then there is an increased risk of mis-classifying arguments, and so, possibly, mis-evaluating them. Ultimately, it is experience that will guide us in determining how long and detailed a list of schemes we should work with. Another factor that will determine how objectively reliable the method is, is how apt the associated critical questions are. If they fail to draw attention to factors that should be considered in evaluating a kind of argument, this will negatively affect the AS Method's *objective reliability*.

We can also consider the AS Method's *subjective reliability*. Will different people with the same level of education, similar backgrounds and who all care about relevant details, arrive at the same results when using the method correctly? On this question the AS Method shows great promise because well-formed critical questions will direct all assessors to consider the same issues about a given

argument and this will diminish the effect of idiosyncracies and contribute towards interpersonal agreement in evaluation. But the AS Method could be subjectively reliable without being objectively reliable if the questions are not well-designed to probe argument strength.

Efficiency. As for efficiency, this concerns first how easy it is to learn the method and, second, once learned, how easy it is to use it. To use the AS Method, argument assessors have to master the concepts we reviewed above as well as well as the inventory of schemes and questions (15, 25 or 60 schemes each with its own set of several questions, depending on which of Walton's presentations they are asked to follow). The longer the list the more there is to learn. In addition, assessors must learn and be able to identify the dialogue type in which the argument occurs, and then learn how to judge an argument by the standard of that dialogue. As for applying the method, assessors must be able to match NLA's with schemes and then ask all the critical questions attached to the scheme, and determine when they have been satisfactorily answered. The method is – to use Govier's term – 'cumbersome' (Govier 1999, p. 109).

Scope. Plausible reasoning, claims Walton (2006, p. 74), is "the most common type of reasoning used in everyday deliberation, as well as in legal arguments." Thus the AS Method – or Walton's development of it – encompasses the most common type of reasoning. But, by the authors admission, it excludes deductive and inductive reasoning (Walton 1996, p. 13). The range of NLA's that the AS Method can deal with is therefore narrower than that of natural language deductivism which professes to be able to handle all kinds of arguments, including inductive and deductive arguments. There is a possibility, however, of broadening Walton's versions of the AS Method by including inductive arguments in the inventory of schemes since there already is a fairly well-developed literature of schemes and questions for such arguments (see, e.g., Salmon 1963).

The standard for the use of an argument will depend on the standard for the type of dialogue in which it occurs. The standards for dialogue types are expressed in the particular rules that will govern each type of dialogue. But Walton only gives us rules for persuasion dialogues, not for the other four kinds. Hence, until we have an explicit set of rules for all the types of dialogue (excepting, perhaps, the eristic type) the method is severely limited in scope.

4. Issues Arising in Connection with Argument Schemes.

(C) *Are the sets of critical questions complete?* In our recounting of the role that Walton gave to critical questions we noticed that the questions were of several kinds: P-questions concern premiss acceptability, S-questions concern premiss sufficiency, and D-questions are about the presence of possible defeaters, etc. All the schemes in both Walton 1996 and 2006 have associated P-questions, as one would expect in a method of argument evaluation. It is puzzling, however, that S-questions are attached to about a third of the schemes in both Walton's 1996 and 2006 books. Since the schemes are supposed to be structures that provides *prima facie* premiss sufficiency, one wonders why S-questions would be included. Does this imply that some of the schemes do not have normative force on their own? We may also wonder why there is not a D-question associated with every scheme. That would be appropriate since the all-things-considered evaluation of a plausible argument must include an inquiry about possible information that would defeat and set aside the *prima facie* support for the conclusion. However, the 1996 book does not include D-questions with every scheme and the 2006 book has very few D-questions. This shortcoming can be repaired, but the method could not be considered objectively reliable unless there was a pertinent D-question attached to every presumptive scheme.

(D) *The moods of schemes.* We should pause to observe that argument schemes can be in any one of three moods. They can be negative as are Johnson and Blair's fallacy schemes; they can be neutral as are the ones from the logic books we reviewed at the outset, and they can be positive in mood as are the ones Walton has shown us. If schemes are in the positive mood then they are such that any argument that instantiates a scheme (and has acceptable premises) will make its conclusion *prima facie* acceptable. Such schemes, we noted, should not include S-questions since a measure of premiss sufficiency is guaranteed in virtue of being an instance of the scheme. Neutral-mood schemes, by contrast, do not confer *prima facie* acceptability on their conclusions. To compensate for this, they must include S-questions along with other critical questions. Thus two slightly different AS methods may be identified: one uses positive-mood schemes without S-questions, the other uses neutral-mood schemes with S-questions. Two consequences of these distinctions may be observed: the one is that if schemes are positive (or negative) then we will be left in want of a way to classify bad (good) arguments; the other consequence is that if schemes are considered as neutral then it will make no sense to talk of 'defeasible argument schemes' since being an instantiation of a scheme does not imply that the argument gives *prima*

facie support to its conclusion. Walton's list of schemes in his 1996 and 2006 books suggest a mixed approach. Some of the schemes are neutral, some are positive.

Robert Pinto has argued that argument schemes are not normative (i.e., that they are in the neutral mood), that they only serve to individuate argument kinds and that the evaluation of presumptive arguments depends on the asking of the critical questions associated with their schemes. He offers a case where the use of a certain argument scheme (i.e., an argument that is an instance of a scheme) would not establish a presumption to the satisfaction of a particular audience. The case turns on the evaluation of a ring. An argument from sign may be used to satisfy a customer that a ring is genuine gold, but a court trying an insurance claim about the same ring would ask for an argument from expert opinion. Hence, concludes Pinto,

The *schemes* can't be what provide the validation of presumptive reasoning, because the use of a particular scheme on a particular occasion itself always *stand in need of validation or justification*. (Pinto 2001, p. 111)

The case involves two different arguments, the one an instance of the scheme for Argument from Sign, the other an instance of Argument from Expert Opinion. Pinto's point is that the court would not accept the Argument from Sign as establishing a presumption for the conclusion (that the ring is gold). Only an Argument from Expert Opinion could establish such a presumption to the court's satisfaction. Hence, concludes Pinto, argument schemes are not normative, as Walton says that they are, in the sense that merely being an instance of a scheme means there will be a presumption for the conclusion.

There are different ways one might attempt to answer Pinto's argument. One is simply to say that Walton's claims about schemes and the arguments they generate is for everyday arguments, and the arguments used in courts are not 'everyday'. Perhaps. But with this retort one immediately admits a significant limitation to the range of the AS Method. Alternatively, one might maintain that the kind of dialogue a customer has with a sales person is a persuasion dialogue, whereas an insurance claim is more likely to be an inquiry dialogue, and then say that these dialogue kinds have different standards, and hence one should not expect an argument occurring in a persuasion dialogue to create a presumption in a legal setting. This may be right, but it introduces a serious complication to the AS Method: it means that we would have to have an index of which kinds of

arguments have force in the different types of dialogues. Taken this way, Pinto's claim becomes not that schemes don't have normative force but that although they all can have normative force in some dialogue type or other, their normative force can vary depending on the dialogue in which they are used, and some of them may not have normative force in every type of dialogue. There is something to this point, I think, but it doesn't go far enough to save the normative characterization of argument schemes because some Arguments from Sign may well be stronger than some Arguments from Expertise. This observation invites us to recover a distinction between weak and strong presumptions (see Whately 1846, p. 118), and then to ask of every argument of a kind how strong a presumption it affords. If we do this we will be obliged to re-introduce S-questions for each kind of scheme and then, I think, we have pretty much taken the normative character – at least as far as it relates to premiss-sufficiency – out of the schemes. Pinto's invented illustration is, therefore, telling.

(E) *Are the schemes sufficiently explicit?* Plausible reasonings, according to Walton, are based on generalizations which are presumptions. We would then expect each of the argument schemes to include a schematic sentence that holds a place for a presumptive generalization, but this is not always the case. Less than half the schemes in Walton 1996 and 2006, have a place for presumptive generalizations: some of the schemes include no generalizations at all, and some of them have generalizations which are neither marked as presumptive nor as plausible. This means that the presumptive generalizations required for plausible reasonings are sometimes part of a scheme and sometimes not, and it leads us to the question of whether the generalizations needed are premises or inference warrants. Should argument schemes have this general pattern:

[S1] Premiss: *w* is an *F*
Conclusion: Presumably, *w* is a *G* ?
rather than this general pattern:

[S2] Premiss: Typically, *F*'s are *G*'s
Premiss: *w* is an *F*
Conclusion: Presumably, *w* is a *G* ?

Walton's inventories of argument schemes includes both ones like S1 which have no presumptive generalizations as premises, as well as some like S2 that do. From the point of view of using the AS Method it seems to be preferable that the

schemes should be of the kind that include generalizations as premises because this will show the assessors the schematic form that the presumption should take, and so leave less of the evaluation process to chance. A related reason to include the generalizations is that the D-questions, which are to be associated with all presumptive schemes because they prompt us to probe for exceptions, are directly related to presumptive generalizations. Thus, schemes will be better logical instruments if they are fully articulated along the lines of S2, with the presumptive generalizations included.

5. Summation

The Argument Scheme Method for evaluating natural language arguments has roots in the history of logic and in fallacy theory. It is, however, a method still under construction. Although it shows promise in terms of subjective reliability, the indecision about how many argument kinds are to be included makes the method's objective reliability uncertain. In terms of efficiency, the AS Method is more complicated than some other informal methods in that one has to master not only the different kinds of dialogue, but also a relatively large number of argument kinds and, finally, an equally large number of sets of associated questions that go one-to-one with the argument kinds. This negative aspect of the method is somewhat compensated for by the consideration that the method has the potential for application to a wide range of NLA's, and it admits of intermediate judgments of quality. The full potential of the AS Method will become apparent when it has been given a consistent exposition: D-questions should be added for every scheme; every scheme should include a presumptive generalization; and all schemes should be in the same mood, preferably the neutral mood.

NOTES

i My thanks to CRRAR colleagues Rongdong Jin and Ralph Johnson, and especially to Doug Walton, for discussion on an earlier draft of this essay, and to two sharp-eyed reviewers for these proceedings.

ii Salmon (1963) does not use the term 'schema' in connection with the following inventory of argument schemes, but he does attach questions to each of them: universal and statistical generalization (p. 85 ff.) statistical syllogism (p. 60 ff.), argument from authority (p. 63 ff.), argument from consensus (p. 66), argument against the man (p. 67 ff.), argument by analogy (p. 70 ff.). See also Merrilee Salmon (1984): inductive generalization (pp. 60-62), argument by analogy (pp.

64-67), statistical syllogisms (pp. 71-74), arguments from authority (pp. 78-80), *ad hominem* arguments (pp. 80-81), and argument from consensus (pp. 82-83).

iii Walton reflected that 'presumptive' indicates a temporary element whereas 'plausible' had more the feel of 'seems to be true'. Conversation, June 2010.

iv Taken from Kienpointner (1992).

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