How Should We Classify Argument Schemes?

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Argument schemes serve a purpose akin to validity in formal deduction, by using critical questions to test the soundness of arguments. The reason to classify argument schemes is so that similar types of arguments will raise similar critical questions. Some writers propose large numbers of argument schemes; others propose very few. While describing argumentative reality may require many schemes, critical testing of arguments is best served by few – though not as few as the three van Eemeren and his colleagues propose.

KEYWORDS: analogy, argument scheme, cause, example, form, sign, testimony, validity, warrant

1. INTRODUCTION

Once again at ECA, I find myself taking up a seemingly simple but foundational question that has little direct relationship to the conference theme. This time it is the question, how should we classify argument schemes? My interest in this topic grew out of a practical problem. I was working on a textbook (Zarefsky, 2019) and had to decide how to organize my treatment of non-deductive inference patterns in ordinary argumentation. To deal with this question intelligently, I had to address a number of prior questions along the way.

2. PRELIMINARY QUESTIONS

2.1 What do we mean by an argument scheme?

An argument scheme is a template for arguments of a particular type. It is a pattern, not a specific argument. It can accommodate a variety of arguments on different subjects so long as they fit the pattern.

The defining characteristic of the pattern is the warrant, in Toulmin's (1958) sense. It is responsible for authorizing inferences

from the grounds of an argument to the claim it advances. It is the warrant that establishes, in the given case, that the grounds add to the argument's probative force by counting as support for the claim. So, for example, arguments on different subjects that depend on causal warrants will belong to the same argument scheme, as will all that rely on analogies to establish a claim. There will be as many argument schemes, then, as there are prototypes of warrants.

2.2 What is the purpose of an argument scheme?

Argument schemes are analogous to the concept of validity in formal deduction. Validity, along with the truth of the grounds, is one of the principal determinants of an argument's soundness. Validity refers to correctness of form. It is not itself concerned with an argument's truth, but rather asks: *If* the statement of the grounds is true, must the claim be true? In a valid formal argument, the grounds will entail the claim. For the grounds to be true and the claim false would be a contradiction.

This gives a check on the argument above and beyond the truth of the grounds. Not only is the evidence correct in what it says, but it *counts as* evidence for the claim's being true. This is important even outside the realm of formal deduction, since the claim goes beyond the grounds, taking us from the known to the relatively unknown. The claim cannot be guaranteed even if the grounds are true. It follows with some degree of probability.

It would be most unfortunate, then, if the only predictor we had of the soundness of the claim were the truth of the grounds. When we count on the warrant to license the inference from grounds to claim, we want to know that the inference follows a pattern whose results generally give us confidence.

2.3 How does an argument scheme inspire confidence?

Regardless of the "school" of argumentation theory from which they come, scholars maintain that argument schemes are tested through a series of "critical questions" that, taken together, enable us to know whether the inferential path put forward in an argument is more likely to be right than is its rejection or the search for some alternative path. Satisfactory answers to the critical questions will rule out alternative paths.

The critical questions will vary by the nature of the inference. In the case of analogy, for instance, one of the obvious questions is whether the things being compared are more alike than different. In the case of causal inferences, one of the critical questions is whether there is

a likely alternative cause; another is whether cause has been confused with effect.

Arguments for which the same critical questions are appropriate generally will be instances of the same argument scheme. Any argument properly classified within the scheme will raise the same critical questions.

But this does not take us very far, because there is no standard way in which to frame the critical questions with which to test an argument. They can be framed very broadly or quite narrowly or anything in between. Different writers will pose different numbers of argument schemes, they will define them differently, and they may pose different critical questions. This observation brings us closer to the central concern.

2.4 How many argument schemes are there?

Writers will answer this question differently depending on how narrowly they slice. The next two major sections will consider quite different answers.

3. WALTON'S APPROACH

Douglas Walton imagines there to be lots of argument schemes. In *Argument Schemes for Presumptive Reasoning* (1996), he proposes 25 different moves in a chapter called "The Argumentation Schemes," and in separate chapters he covers varieties of the argument from ignorance, ignoring qualifications, and the argument from consequences. These presumably are additional argument schemes. His total may be larger, and it may be still growing.

Now, so far as I can tell, Walton's primary goal was not to classify for its own sake but to defend the whole category of presumptive inferences against the charge that they are necessarily fallacious. Presumptively reasonable arguments, Walton writes, are "inconclusive and defeasible arguments that nonetheless have a practical function of shifting the burden of proof in a dialogue" (Walton, 1996, p. ix). To illustrate his point, he offers an assemblage of such arguments with brief discussion of each. This is how he derives his argument schemes.

To the degree that his patterns are basically distinct from one another, it makes sense to treat them as separate categories. But to the degree that they are minor variations of the same basic type, not really raising different critical questions from one another, it does not seem necessary to separate them. In fact, proliferating the number of similar argument schemes may make the categories less reliable by reducing

the likelihood that different analysts will assign the same argument to the same scheme.

For example, Walton identifies one scheme as "argument from expert opinion" and another, "argument from position to know." But in the former scheme, it presumably is one's expertise that places one in a position to know, thus blurring the distinction. If an alleged expert were not in a position to know something, his or her alleged expertise would not count for much. Conversely, for some purposes (such as eyewitness testimony in court), being in a position to know is what will make one an expert on the specific questions at hand. (I realize that this may be somewhat equivocating the term "expert," but that is what may happen if there are multiple available schemes in which to place an argument.) In cases like these, we can run the risk of not asking the right critical questions if we are not sure of the argument scheme.

4. VAN EEMEREN, GROOTENDORST, AND SNOECK HENKEMANS'S APPROACH

Another way to classify argument schemes, quite different from the first, is the work of Frans van Eemeren, Rob Grootendorst, and Francisca Snoeck Henkemans. In their textbook, *Argumentation: Analysis, Evaluation, Presentation* (2002), and in other sources, they reduce the number of argument schemes to three: symptomatic argumentation, analogical argumentation, and causal argumentation.

These authors, I should note, use certain terms differently from my usage. What I call the claim, they call a standpoint; and what I refer to as grounds or evidence, they label the argument. We agree, however, in regarding the argument scheme as that which links together grounds and claim (or arguments and standpoint). The argument scheme consists of an inference and the authorization for it.

What van Eemeren and his colleagues call symptomatic argumentation is often understood as *sign.* One characteristic is predictive of another, so the existence of the first will serve as a sign of the (current or future) existence of the second. Predictiveness is the underlying warrant. Similarly, in an analogical argument scheme, the underlying warrant is one of resemblance between the items being compared. And in a causal argument scheme, the underlying warrant is the influence of one factor on another.

These three are widely recognized as different types of argument, each with its own set of critical questions. For example, symptomatic argument is tested by asking, "Aren't there also other non-Y's that have the characteristic Z?" and "Aren't there also other Y's that do not have the characteristic Z?" (van Eemeren, Grootendorst, & Snoeck Henkemans, 2002, p. 98). Analogical arguments are tested by

asking whether there are significant differences between the items being compared that might outweigh the resemblance (van Eemeren, Grootendorst, & Snoeck Henkemans, 2002, p. 99). And causal arguments are tested by asking whether the alleged cause always leads to the alleged effect (van Eemeren, Grootendorst, & Snoeck Henkemans, 2002, p. 101).

Van Eemeren and his colleagues defend the reduction of argument schemes to a small number by reference to Occam's razor: Other things being equal, simplicity is to be preferred and unnecessary complication avoided. It is easier to remember three categories than 25 or more. And with only three categories, different analysts are far more likely to sort the same argument into the same category. With more arguments needing to satisfy the same critical questions, it is less likely that the critical questions will be fashioned for idiosyncratic arguments rather than the other way around. In short, confining the number of argument schemes can serve as a means of quality control in the evaluation of arguments.

5. ARE THREE ARGUMENT SCHEMES TOO FEW?

What is perhaps unique about the approach of van Eemeren and his colleagues is the belief that the number of argument schemes can be reduced to three. Instinctively it seemed to me that there were more than that. This was the problem I encountered in working on my forthcoming textbook and reflecting in my experiences teaching an undergraduate argumentation course over a period of forty years. Simply put, there were a few argument schemes that seemed to me to fall outside the categories of symptom, analogy, and cause.

5.1 Generalization

To begin with, what about generalizations – argument patterns that relate evidence about the part to claims about the whole, and vice versa? This is a common pattern of reasoning in both its anecdotal and its statistical varieties. The underlying inference is representativeness: what is true of the part is true of the whole, or what is true of the whole is true of the part. This is not the same thing as prediction. It is not that the existence of one thing allows us to predict the existence of another, different thing; it is rather that what we have identified is a representative slice of a larger version of itself. This is a common argument scheme, with different critical questions from those of sign arguments.

5.2 Testimony

Then there are arguments from testimony. To be sure, testimony is a form of evidence. But there also is a form of reasoning based on testimony: *p* is true because *x* says so. The underlying inference is one of credibility, that *x* can be trusted with regard to *p.* Although fallible, *x* has credentials and a track record that make *x*'s word regarding *p* reliable in the absence of strong reason to the contrary. This again is a common argument scheme with its own critical questions.

5.3 Form

My final example of an argument scheme is a bit more idiosyncratic, and that is the argument from form. The literary and rhetorical critic Kenneth Burke defined form as the arousal and fulfilment of appetites (Burke, 1931/1968, p. 124). Form is a pattern such that if we know the opening elements, we can expect what will come next, and the fulfilment of our expectations gratifies us that we are "in the know" because we figured it out before the arguer told us. This is not the same thing as symptomatic argument. It is not that one thing predicts another; it is that the pattern gratifies one's expectations and that gratification allows us to infer that the pattern is correct.

I have found three subcategories of this pattern: the quasi-mathematical, the quasi-logical, and the narrative. Quasi-mathematical arguments employ what look like mathematical relationships, and this form authorizes inferences that are not really mathematical at all. Consider the property of transitivity: if A is greater than B and B is greater than C, then A is greater than C. But suppose we replace "greater" with "better." Then we get "If A is better than B and B is better than C, then A is better than C." But "better" is not an objective mathematical notion and is not reducible to quantitative comparisons. Consider the case of American football. If Stanford defeats Notre Dame and Northwestern defeats Stanford, does that mean that Northwestern is better than Notre Dame? What happens the following weekend when Notre Dame beats Northwestern?

Quasi-logical arguments (the term was invented by Perelman and Olbrechts-Tyteca [1958/1969]) look like logical rather than mathematical relationships. Consider the form of a common scientific argument: If a person becomes frustrated, the person will become aggressive; the person becomes aggressive; therefore, he or she is frustrated. Logically this is actually the fallacy of affirming the consequent. One could be aggressive for reasons other than frustration. We use the procedure of control groups and randomized trials, and we ask critical questions about alternate explanations, in order to make

them less plausible. Only then do we say that the form of the argument looks right. The fact that we can rule out alternatives, not the seemingly logical structure, is what allows us to accept a formally invalid inference as a reasonable argument resulting from its logical form.

Lastly, narrative form has its own conventions and policies. The existence of characters, a plot, a conflict, momentum toward resolution, and the denouement are all elements in the pattern. As Walter Fisher (1987) has pointed out, coherence and narrative fidelity become the critical questions by which we determine whether the story embodied in the narrative holds together and makes sense as a story. If it does, we will count those facts as warrants for taking the story seriously and being influenced by it.

6. CONCLUSION

In sum, then, I set out to offer a minimal number of argument schemes and ended up with six: example, based on the warrant of representativeness; analogy, based on the warrant of similarity; sign, based on the warrant of predictiveness; cause, based on the warrant of influence; testimony, based on the warrant of credibility; and form, based on the warrant of expectation.

Are a few argument schemes better than many? It depends on one's purpose. If the goal is to describe argumentative reality which adheres inexactly to patterns, or to show that presumptive inferences are reasonable, more probably is better. It gives the analyst more tools to use and permits more precise description. But if the goal is to learn how to build and test arguments, fewer is probably better. They are easier to remember and to sort, and it is more likely that different analysts will sort them the same way. Having thus sorted them, one should have a clear choice of critical questions to ask. Since this was my goal in writing a textbook, I opted for a small number of argument schemes. But I could not get the number down to three.

As an aside, I hope this brief example of practical problems in textbook writing illustrates that this sort of writing is far from simple. It uncovers basic issues, confusions in usage, and gaps in theory – all in the process of trying to make the subject matter accessible.

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