

HOW TO CRITICIZE DIFFERENT TYPES OF ARGUMENTS

There are some standard ways to challenge arguments. One way is to *grant* everything in the argument yet ask whether the conclusion has any real significance. We might call this the tactic of asking “**So What?**” This puts a burden on the author to explain why her/his conclusion is worth arguing about at all.

Primarily, however, arguments are challenged by asking whether the premises are justified—or by asking whether the premises adequately support the conclusion. Let’s call these, respectively, the question of “**Justified Premises?**” and the question of “**Adequate Support?**”

One important fact about arguments is:

Rule 1: Arguments of ANY type can be challenged by asking “Justified Premises?”

You can press the issue of “Justified Premises?” in several ways:

1. Is each premise *self-consistent*? Are the premises *jointly consistent*?
2. Do the premises have *dubious implications*? For instance, if the premises include a generalization, does it have *counterexamples*?
3. Are there any *fallacies of unjustified premises*? (We shall study these in the next part of the course.)
4. Are the premises *clear* and *otherwise acceptable*? If a premise is unclear, can it be made clearer? If a premise is not obviously acceptable, is there a separate argument in its support? (If so, that argument is open to assessment as well.)

Again, such matters of justification are worth considering in relation to any type of argument. However, the question of “Adequate Support?” should be handled differently in relation to deductive versus non-deductive arguments.

Critiquing Deductive Arguments

In a **deductive argument**, the question of “Adequate Support?” is always YES. After all, if the argument really is *deductive*, then there is no way that the conclusion could be false if the premises are true. The premises support the conclusion *perfectly*. Accordingly,

Rule 2: Besides asking “So What?”, the ONLY way to challenge a deduction is to ask “Justified Premises?”

HOWEVER: Sometimes a person *acts as if* their argument is deductive when really it is not. These are “Pseudo-deductions,” a class of argument fallacies, which we shall study in the next part of the course.

So if a person *acts as if* their argument is deductive, you can still meaningfully ask “Adequate Support?” since the argument may not *really* be deductive. Nevertheless, if the argument actually is deductive, then asking “Justified Premises?” would be the only way to challenge it (besides asking “So What?”)

Critiquing Non-Deductive Arguments

Per Rule 1, you can always critique a non-deductive argument by asking about the justification of the premises. But with non-deductive arguments, you can also meaningfully press the question of “Adequate Support?” as per the following rule:

Rule 3: With a non-deductive argument, asking “Adequate Support?” means asking whether there are *likely* scenarios in which the premises are true and the conclusion is false.

That is, you can ask “Adequate Support?” by asking whether the premises genuinely make the conclusion likely. In more detail, consider scenarios which illustrate why the argument is non-deductive—scenarios where the premises are true and conclusion is false. Then, ask whether those scenarios are *likely*. If you find that one of those scenarios is likely, then that undercuts the idea that the premises make the conclusion likely.

To make this more concrete, consider the following practical argument:

- (P1) Stocks in company X are low.
- (P2) They will soon rise in price.
- (C) So, investing now in company X is an ideal choice.

First, convince yourself that the argument is non-deductive by imagining scenarios where the premises are true and the conclusion false. Here’s one: Stocks are low and will soon rise, yet someone is holding a gun to your head and will shoot you if you invest. Of course, that scenario is totally ridiculous. So it does not really affect the argument. On the other hand: Imagine that stocks are low and will soon rise, and yet company X is a company like Asics which depends on child- and/or slave-labor. That is also a case where the premises are true and the conclusion false—and it may be a much more likely scenario. If so, then the likelihood of the scenario shows that the premises do not make the conclusion likely.

This illustrates the method of “testing” a non-deductive argument. We *search the possibilities* to find ones where the premises are true and the conclusion is false. We then ask how *likely* those possibilities are. Is it plausible that such possibilities represent how things actually are? The extent to which such possibilities are likely is the extent to which the premises are limited in supporting the conclusion.

We can get a better grasp of this “testing” procedure if we consider how Rule 3 applies to specific types of non-deductive arguments...

Critiquing Inductive Support

Concerning inductive arguments specifically, Rule 3 can be narrowed down to the following:

Rule 3a: With induction, “Adequate Support?” means asking whether the pattern indicated in the premises is likely to continue (as per the conclusion).

Consider for example:

- (P1) 80% of our random sample rejected communism.
(C) So, 80% of the general population reject communism.

The premises record a pattern where 8 out of 10 people reject communism. Rule 3a prompts the question whether that pattern will hold of the general population, as suggested in the conclusion.

Relevant considerations in answering this question are: Is there reason to think the sample is *biased* or *skewed*? Even if not, is the pattern described in the premises just the result of chance? Or is there is some *explanation* for the pattern which indicates that it will likely continue? Appropriate answers to these questions are aided by good science—and we will study what makes for “good science” later in the course.

Critiquing Abductive Support

If Rule 3 is tailored to apply to abductive arguments, the rule can be understood as follows:

Rule 3b: With abduction, “Adequate Support?” means asking whether alternative explanations of the premises are likely.

Here, let us consider:

- (P1) I have a cough today.
(C) So, I have a cold.

In applying Rule 3b to the case, imagine other possible explanations besides a cold, and decide whether those alternative explanations have a good chance of being true. For example, one could consider allergies or perhaps that I am developing asthma. If those other possibilities turn out to be likely, then the support for (C) is weakened accordingly.

Identifying alternative explanations sometimes requires some effort and imaginative ability. And judging their likelihood is often not straightforward. But both tasks can be assisted by good science (and again, we will study what counts as good science later).

Critiquing Practical Support

Here, the main issue regarding “Adequate Support?” is whether the argument shows that the recommendation for/against an action (in the conclusion) is likely to be beneficial, all things considered. More exactly:

Rule 3c: With a practical argument, “Adequate Support?” means asking whether the recommendation is likely to be a valuable one, assuming the premises, compared to any competing recommendations.

We scrutinized an example of a practical argument earlier, when presenting Rule 3. But some focus-questions to ask when applying Rule 3c are: Does the argument downplay or ignore any disadvantages of its recommendation? Or, even granting the premises, is there an alternate recommendation which would be better to follow? Etc.

Often, a speaker acts as if their practical argument is deductive; as such, the argument is a “pseudo-deduction.” It is key to recognize that such arguments, while often very reasonable, are never conclusive. This is aided by asking whether a fallacy is being committed—especially the *Nirvana Fallacy* (see the handout on “Pseudo-Deductions”).

Critiquing Other Kinds of Support

Arguments in the “other” category are various. So there is no straightforward rule for asking “Adequate Support?,” beyond Rule 3 as such. Though we can still offer some bits of advice:

-With a *mixed* argument, you can first distinguish between the different kinds of arguments being deployed and evaluate each argument separately.¹

-With an *enthymeme*, you should press the speaker for clarification on what exactly they are thinking. This should ultimately yield a more detailed argument which is either a mixed argument, an argument by analogy, or an argument that falls into one of the previous categories.

-In an *argument by analogy*, the premises claim that X and Y are analogous, and that X has a certain feature F. The conclusion is that Y (probably) has F as well. With such an argument, “Justified Premises?” means asking whether X and Y are really analogous, or perhaps asking whether X even has feature F. Whereas, “Adequate Support?” can be pressed by asking:²

- (a) Are the *similarities relevant* between X and Y? In other words, do the similarities between X and Y really make the conclusion *more likely than not*?
- (b) Are there *relevant differences* between X and Y? In other words, do the differences between X and Y indicate that the conclusion is less likely than the speaker thinks?
- (c) If X and Y are groups: Are members of the two groups similar and different *in the same ways*? Or in fact, is there a significant diversity among the members?
- (d) If X and Y are groups: Do we have *enough examples* of each group to make comparisons? Or are we making hasty generalizations about the groups based on only a few cases?

¹ If a mixed argument is broken down into two arguments for the same conclusion, the two arguments might still *jointly* provide better support for the conclusion than either argument individually. After all, the two arguments might offer different bits of supporting evidence. If so, the arguments should not be considered separately, at least not entirely. But take heed: Two arguments are not always better than one. If a conclusion is supported by bad argument, adding a second bad argument doesn't help!

² (a) – (d) are from Lewis Vaughn (2019), *The Power of Critical Thinking*, 6th edition. Oxford UP, pp. 280-282.