

Some Critical Questions about Critical Questions*

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1. Introduction

One of the most popular theories of argumentation (e.g. Walton, Reed, and Macagno 2008) represents arguments by a set of argumentation schemes. These schemes each consist of a set of premises and inference rules, plus a set of Critical Questions (CQ). These CQ are possible counterarguments. This theory provides the structure of a single but important (micro-)argument that is only a part of the current debate in argumentation theory (see van Eemeren and Grootendorst 2004). However, its way of representing argumentation is easy to grasp, easy to teach, and easy to handle in practice, therefore it is very useful. From a theoretical point of view, however, it is not fully satisfactory, because the set of Critical Questions is rather varied. Some CQ are general rules for rational discourse that need not to be stipulated in argumentation theory at all (“Clarify notions!”),

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others are general rules for any argumentation scheme that need not to be stipulated in a particular scheme (“Check the premises!”), and yet others are peculiar to a particular scheme (“How credible is the expert?”). This paper is an attempt to tidy up the set of CQs by sorting out those that are characteristic to a particular scheme from those that are not, and moving them all into a structured set of premises (explicit vs. implicit premises, context-dependent vs. context-independent, etc). The aim is to represent an argument as deductive by reconstructing the full set of implicit premises and qualifying the conclusion so that the task of the opponent would be a single one: “Check the premises!” The reconstruction of an argument as deductive by adding implicit premises appears to be the only reliable way of showing its soundness. On the other hand, such a reconstruction is of no use in argumentative praxis; this is the domain of schemes and CQs. But its applicability in practical contexts should shape the theory and should lead to answers about what a theory of schemes and CQs should look like.

In what follows, these questions will all be answered with “yes”:

- Are some Critical Questions implicit premises in disguise?
- Are some Critical Questions general rules of linguistic discourse independent of argumentation?
- Can all Critical Questions be reduced in one of these two ways?
- Are Critical Questions useful for all that?

2. Argument Schemes and Critical Questions

In mathematics a valid argument has the following form: It begins with a statement of its premises, which have been derived by logically valid deductions from an ingeniously chosen set of axioms using an ingeniously chosen language that defines which deductions are valid. It continues with an ordered set of statements that are derived by logically valid and perspicuous deductions from the premises until the conclusion is reached. In everyday life an argument never looks exactly like this, yet the structure is similar.

When a speaker argues in everyday life, this will include making assertions that support assumptions relevant to the activity the interlocutors are engaged in. The form of support is hardly ever that of logical deduction. Stephen Toulmin (1958), one of the founders of “Informal Logic” or modern argumentation theory, calls these non-deductive, non-valid arguments “substantial arguments”. However, it has not yet been shown that substantial arguments cannot be reconstructed as deductive arguments by demonstrating that there are further implicit premises hidden in the explicit argumentation. In everyday argumentation the

full set of premises is hardly ever stated, for the simple rhetorical reason that argumentation must be brief. The full set of premises is almost always irrelevant and would tire the addressee. This even holds for most mathematical proofs. These, however, can be reconstructed in a unique way, which is not possible in everyday argumentation; the reconstruction of an everyday argument is an interpretation and depends on the view of the interpreter. I daresay that applies to all pragmatic analyses of linguistic discourse.

Trying to convince a person of the truth of a proposition is an attempt to integrate that proposition into the subjective “web of belief” that this person holds. This “web of beliefs” is a system of propositions which support each other by relations of deductive inference or in a “substantial” way (cf. Becker 2012). If the proposition ‘fits’ into this web, it will be accepted as true. When one engages in argumentation, it is advisable to use premises that are already in the hearer’s web; premises that are not in his web will not have the power to persuade them of the truth of the proposition in question and are therefore irrelevant; premises that are not in the asserter’s web yield insincere assertions or arguments, yet they can be relevant all the same. By way of example let us consider an argument scheme taken from “Informal Logic” (cf. Walton, Reed, and Macagno 2008, 310):

Argument from Expert Opinion

Major Premise: Source *E* is an expert in subject domain *S* containing proposition *A*.

Minor Premise: *E* asserts that proposition *A* is true (false).

Conclusion: *A* is true (false).

Critical Questions

CQ1: *Expertise Question:* How credible is *E* as an expert source?

CQ2: *Field Question:* Is *E* an expert in the field that *A* is in?

CQ3: *Opinion Question:* What did *E* assert that implies *A*?

CQ4: *Trustworthiness Question:* Is *E* personally reliable as a source?

CQ5: *Consistency Question:* Is *A* consistent with what other experts assert?

CQ6: *Backup Evidence Question:* Is *E*’s assertion based on evidence?

In an actual argumentative discourse, the well-prepared opponent will recognize the argument as an instance of the scheme “argument from expert opinion” and he will have the Critical Questions ready at hand to be used as possible counter-arguments.

The argument appears as a syllogism divided into major and minor premise, other examples by Walton, Reed, and Macagno (2008) have the form of *modus ponens*. Nevertheless, these arguments are not deductively valid as they all leave some parts of the argument implicit and their structure is somewhat arbitrary. For example, the major premise above could as well be left implicit and instead

play the role of a Critical Question. Moreover, most of the Critical Questions can be rephrased as implicit premises. Some of the Critical Questions can be better understood as very general rules of behaviour rather than premises specific to the type of argument in question. An example of these general rules of behaviour is the requirement of evaluating sources of information (CQ1, above), for example when you have several dictionaries and have to decide which one you trust most regarding the meaning of a specific phrase or when you have to judge the reliability of a witness.

The apparent sloppiness of the theory seems to make it unserviceable for the major purpose of argumentation theory, which is the evaluation of the argument's rationality. It is undisputed that a deductively valid argument whose premises are accepted leads to a conclusion that has to be accepted as well. However, it appears to be equally undisputed in "Informal Logic" or "Argumentation Theory" that most everyday arguments cannot be reconstructed in this way. The proof of this claim, however, is outstanding; its refutation, on the other hand has to overcome considerable difficulties. In what follows I will try to name some of the difficulties and to sketch possible ways of dealing with them, focussing on the role of Critical Questions.

3. Implicit Premises

Most Critical Questions can be rephrased as implicit premises, as Walton himself acknowledges (Walton, Reed, and Macagno 2008; Walton and Gordon 2011):

Any particular interpretation of a list of premises and critical questions can be adequately characterized as a set of linked premises, many of which may be left implicit in an actual text. (Walton, Reed, and Macagno 2008, 17)

An argument can be shown to be rational if one can reconstruct a set of premises that are acceptable and that entail the conclusion. Even a mathematical proof normally leaves some premises implicit, yet these implicit premises can be reconstructed in a unique way. In everyday argumentation, this is not the case; the number of possible reconstructions may be indefinite, perhaps infinite; moreover, such a reconstruction is always an interpretation that can be rejected: the reconstruction itself is open to discussion. The task, of course, is not simply to add premises that yield the argument valid, e.g. you can always add the premise "if the expert says so, it is true", which will be false in most cases. The task is rather to find *acceptable* premises, which is certainly problem number one of argumentation in general. The major task of the opponent in an argument is always to check the premises; this is the reason why Critical Questions can and should be asked.

A minor problem, almost negligible, is the need of trivial premises that are necessary to make the entailment work, such as “ $p \& q$, therefore p ”. The argument from expert opinion, for example, requires a premise like “If a reliable source of information yields p , then p is reliable”. These “theoretical”, context-independent, premises are of little interest and are generally not open to discussion because they are simply the basic semantic rules required by any reasonable conversation; they make the reconstruction so awkward that you would never use them in an actual dispute. However, the reconstruction of an argument is not meant to be a move in an actual dispute but rather part of a post-hoc analysis in an academic context where awkwardness is pervasive anyway.

Another important issue to consider is the following: The need to qualify the conclusion is - although often neglected - not a minor problem in the reconstruction of an argument. In Toulmin’s model (1958, 97; cf. Fig. 1) “data”, “warrant”, “backing” and “rebuttal” are premises (for the most part implicit), whereas the conclusion (“claim”) is qualified (“qualifier”).

The conclusion has to be qualified in *any* argument; no argument whatsoever can establish objective truth, whatever that term should mean. The conclusion of an argument always includes some presumption.

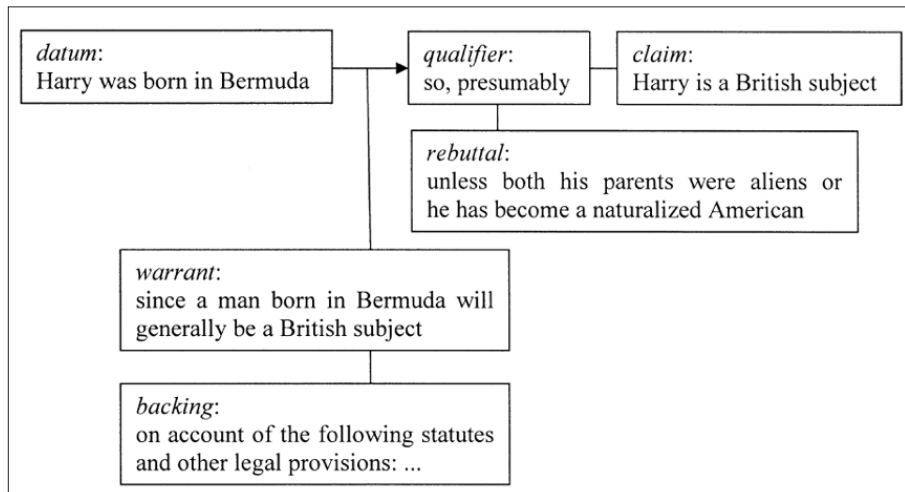


Figure 1 – Toulmin’s model

4. The Qualification of the Conclusion

Not even mathematical truths are “objective” truths – they depend on axioms that are chosen and can be chosen in a different way. Not even the utterly self-evident parallel postulate of Euclid was safe from revisions, let alone what we argue for or against in everyday life. Everyday-life argumentation never establishes anything like infallible truth, which is impossible, as we are taught by the history of science. The conclusions of our arguments – just as their premises – are presumptions (Walton 1996; Rescher 2006). In Toulmin’s model (1958, 97; cf. Fig. 1) this qualification is precisely expressed: “presumably”. What is a presumption? A presumption is an assumption that is based on common sense or life experience in the absence of corroborated evidence; rational agents base their activities on these assumptions until they obtain evidence to the contrary. Presumptions are also called ‘defaults’ or ‘default assumptions’. Examined in the cold light of day, all truths, scientific truths included, involve presumptions, corroborated or not by (refutable) evidence.

Presumption originally is a term of (post-classical) Roman law:

A presumption occurs when a fact is deemed proved although it is not directly proved and its existence is only logically [sic] inferred from another fact established through evidence. [...] In later (Justinian’s) law there were some presumptions legally imposed to the effect that a fact had to be considered proved in court as long as no counter-proof was offered (*praesumptio iuris*). (Berger 1953, 646)

Most likely it was Leibniz who generalized the notion from a legal term to an epistemological one: “presumption is what should be considered true until the contrary is proven” (“*praesumptio est, quod pro vero habetur donec contrarium probetur*”, 1676/1980, 631). He also correlated presumption with a shift in the burden of proof (1696/1890, 521): “presumption, that is, when and how, one has the power to transfer the [burden of] proof from himself to someone else (“*praesumptio* das ist, wenn und wie, einer den Beweis von sich auff einen andern zu legen macht habe”)

Later, Whateley distinguished it from a “probable assumption” (1841, 120):

According to the most correct use of the term, a ‘Presumption’ in favour of any supposition, means, not (as has been sometimes erroneously imagined) a preponderance of probability in its favour, but, such a preoccupation of the ground, as implies that it must stand good till some sufficient reason is adduced against it; in short, that the Burden of proof lies on the side of him who would dispute it.

Although most presumptions are more probable than their contradictions, there are other reasons for choosing presumptions. The “presumption of innocence”, e.g., saying that a defendant at the bar is to be assumed innocent until his guilt is proven, is made on ethical considerations, although this presumption is not more probable than its contradiction. Ullmann-Margalit (1983, 162) explicitly pointed out the pragmatic factor: “The procedural consideration has to do with the question of what presumption will be the most useful to adopt as an initial step in the process of deliberation.” If your neighbour accuses you of driving a car without a licence, the burden of proof is on his side, but the matter is settled more easily if you just show him your licence card.

Every-day argumentation does not establish truth. If the addressee accepts the conclusion, it will serve him as orientation, and if it is “true”, it will turn the addressee’s practical tendencies towards the “right” path. I personally doubt that truth can be more than this.

Argumentation is hardly ever purely academic but embedded in the practice of the agents in question. The qualification of the conclusion of an argument has to be related to that practice, that is, the reliability of the presumed conclusion has to match the risk taken with a false decision on which future practise is to be based. The qualifier “presumably” or “contradictory evidence lacking” contextually implies that the risk of error involved in the decision corresponds to the probability of the conclusion. The reliability of the conclusion in Toulmin’s example would not be enough for issuing a passport but enough for choosing a topic of small talk. When reconstructing an argument, one has always to add a premise like “The reliability of the conclusion is sufficient for taking it as a basis for future action”, which has to be specified properly according to the speech situation. Such a premise is strong enough to turn an inductive argument into a deductive one, but, of course, it is open to attack. In the same way, an abductive argument can be made deductive by adding the premise “This is the best explanation; at present there is no better one at hand”. An argument from analogy can be made deductive by ingeniously inventing a rule that all “good” cases of analogy satisfy and counter-analogies do not (cf. Hümmel 2014). A deductive reconstruction of the argument in this way is the proper basis for the evaluation of its soundness. One has to find the appropriate premises and to judge their acceptability. The validity of the inference can be shown by logical or semantic methods; any weakness of the argument becomes visible as an explicit weak premise. An argument can be attacked by showing unacceptable premises, but it can still be defended by finding a better reconstruction. The theory of schemes and Critical Questions is not the best choice to serve this purpose; nevertheless, as I have noted, it is suited to other purposes.

5. The Role of Argument Schemes and Critical Questions

The deductive reconstruction of arguments merges all argument schemes into one: a complex *modus ponens*. Does that mean that these schemes are unimportant? By no means: Their importance lies in the *praxis* of argumentation, both in acting as an arguer and in evaluating an argument in a face-to-face situation. A reconstruction as has been sketched in §3 and §4 would be far too complex and time consuming. Argumentative practice requires a different representation of arguments.

Argument schemes are types of arguments in actual usage arranged according to

- which premises are normally made explicit by arguers
- how these premises normally are arranged
- which premises are normally left implicit (being regarded as irrelevant, being assumed as common ground, or hidden by a sophistic arguer) yet open to the attack by the opponent.

The classification of argument schemes yields types of arguments that can be recognized, that can be given a name and that can be memorized. The implicit premises, which are the possible targets of attack, need not be reconstructed each time by the arguer or analyzer, rather they can be memorized as Critical Questions. The well prepared arguer recognizes an argument scheme in the middle of the debate and has the corresponding critical questions ready at hand, and so he can use them immediately without the need to carry out a time consuming reconstruction.

Argument schemes are not entities in the outside world that can be discovered and described correctly or incorrectly, but they are rather man-made constructions for specific purposes; they should be constructed in a way such that they best serve their purposes.

This view of Argument Schemes suggests answers to some important questions (cf. Blair 2001):

- Their typology is descriptive; however, it is prescriptive in so far as it is advisable to argue in a normal way.
- The completeness of the set of Critical Questions can be checked against a number of rational reconstructions as sketched in §3 and §4 above.
- The proper way of classifying argument schemes optimizes the typology to a level of abstraction such that the schemes are optimally recognizable and memorable. The schemes should be abstract enough such that there are not too many of them; on the other hand, they should not be so abstract and

specific that they cease to be useful (60 is too many, 3 too few). The adequate number of types to be taught to experts is higher than that for high school students. An ingeniously constructed hierarchy of types and subtypes increases the number of memorable types.

The construction of the hierarchy of types has been and will be an important issue in the theory of argumentation. I will not broach this topic but will look briefly at a similar topic that has been neglected so far: The distribution of Critical Questions or implicit premises over a hierarchy of theories.

6. Argumentation Theory in the Hierarchy of Theories

It is noteworthy that some of the Critical Questions in Walton, Reed and Macagno (2008, chapter 9) are not specific to a particular argument scheme but pertain to several or even all schemes, some are even very general rules of any theory of linguistic discourse or any theory of action. This is made clearer when we consider that one can view an argument on different levels of abstraction:

- 1) As an action,
- 2) as a communicative act (verbal or non-verbal)
- 3) as an argument in general,
- 4) as an instance of a specific argument scheme

Argumentation theory “inherits” or specifies the principles of the higher levels:

Ad 1): “A ‘good’ action is an action that progresses towards the intended goal of the activity.” This definition is specified in the following way: “A ‘good’ argument is an argument that progresses towards the resolution of the difference of opinion between the arguers.” Another rule of Critical Thinking and, beyond it, a rule of rational action is “Check the reliability of information sources!” This rule turns up in several argumentation schemes:

Position to Know (Walton, Reed, and Macagno 2008, 309):

CQ2: Is *a* an honest (trustworthy, reliable) source?

Witness Testimony (Walton, Reed, and Macagno 2008, 310):

CQ2: Is what the witness said consistent with the known facts of the case [...]?

CQ3: Is what the witness said consistent with what other witnesses have (independently) testified?

The notion of ‘presumption’ is of general use, but it turns up as a Critical Question in the following scheme:

Popular Opinion (Walton, Reed, and Macagno 2008, 311):

CQ2: Even if A is generally accepted as true, are there any good reasons for doubting that it is true?

Ad 2): “Clarify vague expressions!” is a rule pertinent to any linguistic discourse; e.g. the meaning of ‘expert’ should be made clear in any rational discussion, yet it turns up as a Critical Question several times, particularly in the following:

Expert Opinion (Walton, Reed, and Macagno 2008, 310):

CQ2: Field Question: Is E an expert in the field in which A is?

CQ5: Consistency Question: Is A consistent with what other experts assert?

CQ6: Backup Evidence Question: Is E’s assertion based on evidence?

Ad 3): “Check the premises!” is a rule pertinent to any argument scheme, yet it is repeated in several schemes:

Position to Know (Walton, Reed, and Macagno 2008, 309):

CQ3: Did *a* assert that A is true (false)?

Argument from Example (Walton, Reed, and Macagno 2008, 314):

CQ1: Is the proposition claimed in the premise in fact true?

Tidying up the sets of Critical Questions could reduce their number considerably and relieve the memory of trained arguers.

7. Conclusion

Any theory serves a particular purpose and its design should be determined by that purpose. In order to evaluate the soundness of a particular (micro-) argument it should be reconstructed as a derivational inference by explicitly adding the necessary premises that normally remain implicit. The evaluation of an argument is the more fallible the more it leaves implicit thereby burdening the common sense of the evaluator. On the other hand, such a theory is of little use in practical argumentation. Although the schemes-and-CQ-theory is not the optimal choice for the purpose of evaluating the soundness of an argument, it is a very useful toolkit for arguers in practice.

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