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Fundamental Circularities in the Theory of Argumentation

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ABSTRACT: Sometimes pernicious circularities appear in definitions of fundamental concepts of argumentation theory. For instance, in pragma-dialectical theory, the concept of a fallacy and that of a critical discussion aiming at resolving a difference of opinion mutually presuppose one another. A similar relationship obtains, in argumentation theory at large, between the concept of argumentation and that of rationality. Again, the concept of an argumentative dialogue presupposes a concept of statement. Yet, statementhood is sometimes claimed to be determined by a locution's function in dialogue. Similarly, for the concepts of proof and argument. Are these circularities really objectionable? Are they resolvable? If they are not, how can we live with them? It will be argued that some of these problems can be neglected some of the time, but not all of them all of the time. Though there may be no royal road towards resolution, several strategies can be applied. But sometimes patience is what is needed.

KEY WORDS: circular definition, fallacy, critical discussion, argumentation, rationality, statementhood, proof

1. INTRODUCTION

Circularity as it occurs in the logical literature is of two types. On the one hand, there is the phenomenon of circular reasoning, associated or identified with the fallacy of begging the question or petitio principii. On the other hand, there is the circularity in attempts at clarification and explanation of concepts. In both cases the circularity is most often frowned upon. Circular reasoning or arguing may be rejected as viciously circular (*circulus vitiosus in probando*) and therefore fallacious. Circular clarification, explanation and definition may likewise be decried as vicious (*circulus vitiosus in definiendo*). Yet it must be recognized that of either type of circularity there may also be nonvicious cases. The present paper is exclusively concerned with circularities of the second type: those that occur in clarifications, explanations, and definitions. Rather than dealing with this matter in a general way, for instance by surveying the circularities that one may observe in argumentative practice, it does so in a reflexive way, taking a look at some fundamental circularities (i.e., circularities among fundamental concepts) that beset argumentation theory itself. The crucial question is whether these circularities must be classified as vicious or nonvicious.

One example of the kind of theoretical circularity I have in mind occurs among the key concepts of pragma-dialectical theory where the concepts of fallacy, of resolution of a difference of opinion or dispute, and of critical discussion are intimately intertwined in a way that has at least the appearance of leading one around in circles. A second example, also found in pragma-dialectical theory, but mirrored in the theory of informal logic, concerns the mutual dependence of the concepts of argumentation and rationality. The third example takes up Hamblin's

suggestion to make the concept of a statement dependent upon its function in dialogue, which leads to a circle when dialogues are conceived as conglomerates that consist out of – among other things – statements. Finally, when proof is demystified, and seen as a particular kind of argument, whereas argument is defined by reference to the ideal of proof (for instance, as an *attempt* to prove or as a potential *part* of a proof), the concepts of argument and proof display a mutual dependence not unlike the one between argumentation and rationality.

Clearly, the latter two examples are more special, being tied to relatively uncommon construals of their concepts, whereas the first two examples pertain to concepts as they are construed in the main streams of argumentation theory. These are also the tougher ones. I shall, therefore, discuss the examples in reverse order (Section 2). After that, it remains to be seen how worried we should be about these circularities (Section 3). A number of strategies to cope with them will be presented (Section 4), but no definitive solution will be proposed (Section 5).

2. FOUR EXAMPLES OF CIRCULARITIES

Argument and proof

The concepts of argument and proof are closely related. The Latin verb *arguo* means 'I argue' as well as 'I prove'. Contemporary dictionaries list various meanings of 'arguing' and 'proving' and of 'argument' and 'proof'. If we look at those parts of entries for these terms where the meanings come close together, the most conspicuous distinction between argument and proof seems to be that, whereas a proof is by definition a successful establishment of some truth, an argument may merely be an attempt to establish the truth. Thus, if argumentation theorists would base their analyses on these hints from the dictionaries, proof would have to be construed as the ideal of argument and the concept of proof would have priority over that of argument.

Things are not always seen in this light. According to Ralph Johnson, for instance, proofs are only marginally connected with arguments (2000, Fig. 6.1, p. 169). They are not central. Yet to call a proof an argument may 'make some sense, but that sense has to be unpacked in terms of clear center' (p. 168). So it seems that, according to Johnson, we would be ill-advised to explain argument in term of proof, but must not exclude that proof may be explained in terms of argument. The present author, too, has avoided explanations of argument in terms of proof. Rather, after demystification, most kinds of proofs can be identified with arguments that fulfill certain special conditions (Krabbe, 1997).

Nevertheless, it may seem that the most natural explanation of argument is a functional one, that an argument is an attempt to achieve something, and that this something is closely akin to what some people call 'proof' or to be grasped by a 'prooflike' concept. (Rational persuasion constitutes one example of such a prooflike concept.) If so, a circle threatens.

Dialogue and Statement

Traditionally, any dialogue, discussion, or conversation consists of a series of utterances among which, besides utterances of other types such as questions, requests, stipulations or challenges, statements figure prominently. Certainly, dialogues of an argumentative type, in which arguments are brought to bear on the matter discussed, cannot proceed without statemental locutions. The simplest way to introduce a type of dialogue seems to be to start with a list of locution types, including statements, which may occur in the dialogues of that type. Thus Charles

Hamblin, in his *Fallacies,* starts the definition of his 'Why-Because system with questions' by listing types of locutions (1970, pp. 265). It seems very hard indeed to explain what a dialogue is, if the concept of a statement is not available.

Yet Hamblin suggests in the last chapter of the same book that the correct methodological approach would be the other way round: whether some locution is a statement should be determined by its role in a dialogue. Thus the essence of statementhood would be found in a locution's function, and this function must be described in terms of the dialogue in which it functions (and in terms of the function of this dialogue):

> If we want to lay bare the foundations of Dialectic we should give the dialectical rules themselves a chance to determine what is a statement, what a question, and so on. This general idea is familiar enough from Wittgenstein. I do not think however, that it has ever been worked out in any detail. The programme is too large a one to be undertaken here... (Hamblin, 1970, p. 285)

The program would also threaten to lead us into a circle, since, as said before, the concept of dialogue seems to presuppose that of statement and can hardly be explained without it.

Argumentation and rationality

The relationship between argumentation and rationality is a basic theme of Ralph Johnson's *Manifest Rationality* (2000). Right on the first page Johnson quotes Jürgen Habermas (1981, p. 22) as claiming that the concept of rationality 'has to be elucidated in terms of a theory of argumentation.' Johnson agrees with the intention to connect rationality and argumentation, but thinks Habermas 'had it backwards…if the practice of argumentation is to be understood, it must be understood in terms of rationality' (2000, p.1). A little later, it is said that 'argumentation depends on rationality' (p. 12), and also that 'argumentation exhibits rationality and increases it' (p. 13). But how then are we to understand rationality? Johnson offers a preliminary specification of rationality: 'Rationality is the ability to engage in the practice of giving and receiving reasons' (p. 14), and he makes it clear (following Siegel, 1988) that no merely instrumental (means-end) rationality suffices, but he refrains from further clarifications:

> I must bypass the fascinating theoretical debates about the nature of rationality and simply say that rationality can be understood as the disposition to, and the action of, using, giving, and-or acting on the basis of reasons (Johnson, 2000, p. 161).

But now circularity threatens, since it is hard to imagine how the concept of (giving) reasons could be explained independently from notions relating to the practice of argumentation and to processes of argumentation. Johnson himself seems aware of these problems when he discusses the relationship of such terms as 'argumentation', 'rationality', and 'reasoning' as the 'second form of The Network Problem' (p. 23). Indeed the present paper can be viewed as an exercise in network problems.

The present circularity problem is not restricted to Johnson's book. On the contrary, it seems a quite general problem for argumentation theories. The following definition occurs in a contemporary handbook that was meant to encompass the views of various schools and research programs:

> Argumentation is a verbal and social activity of reason aimed at increasing (or decreasing) the acceptability of a controversial standpoint for the listener or reader, by putting forward a constellation of propositions

> intended to justify (or refute) the standpoint before a rational judge (Van Eemeren, Grootendorst, Snoeck Henkemans, et al., 1996, p. 5).

This definition uses the concept of 'rational judge', and hence that of rationality. (It also uses the concept of 'activity of reason'.) Following Stephen Toulmin (1976), three options are considered for the concept of rationality: one may take a geometrical, an anthropological, or a critical approach (Van Eemeren, Grootendorst, Snoeck Henkemans, et al., 1996, p. 23). If the third option is taken (as in formal dialectic and pragma-dialectics), or if the third option is to contribute at least part of the meaning of rationality, one confronts once more the looming threat of getting into a circular explanation of concepts. For, according to the critical approach, the concept of rationality seems to depend on that of an argumentative procedure:

> The critical approach equates rationality with the functionality of the argumentative procedures used for achieving the aim for which they are designed... (Van Eemeren, Grootendorst, Snoeck Henkemans, et al., 1996, p. 23).

Fallacies, resolution, and critical discussion

One of the stock-in-trade distinctions in pragma-dialectic parlance is that between resolving and settling a dispute. 'Settling a dispute means that the difference of opinion is simply set aside.' This can be done in more civilized ways such as by tossing a coin, calling in an arbitrator, or asking for votes, or it can be done in less civilized ways such as blackmail or physical assault (Van Eemeren and Grootendorst, 1992, p. 34). *Resolving* a dispute, however, is something special:

> A dispute is resolved only if somebody retracts his doubt because he has been convinced by the other party's argumentation or if he withdraws his standpoint because he has realized that his argumentation cannot stand up to the other party's criticism. Critical reactions and argumentation play a crucial role in the resolution of a dispute. To really resolve a dispute, the points that are being disputed have to be made the issue of a *critical discussion* that is aimed at reaching agreement about the acceptability or unacceptability of the standpoints at issue by finding out whether or not they can be adequately defended by means of argumentation against doubt or criticism (Van Eemeren and Grootendorst, 1992, p. 34, italics as in the original).

Thus the concept of a critical discussion crucially underlies that of resolving a dispute (or difference of opinion). This is confirmed by Frans van Eemeren and Rob Grootendorst in their refined version of pragma-dialectical theory (2004), which contains various theoretical adjustments, but not on this issue:

> We have drawn up a model of *critical discussion* to make clear what is implied by the pragma-dialectical approach to argumentative language use as a means of resolving a difference of opinion (Van Eemeren and Grootendorst, 2004, p. 57, italics as in the original).

In both the refined and the earlier version of the theory, the concept of critical discussion is further specified by a pragma-dialectical model of a discussion procedure, comprising four stages and a set of rules (ten rules in 1992, fifteen rules in 2004) to regulate the interaction in these stages. (An adjusted version of the set of ten rules reappears in 2004 as a code of conduct for practical purposes.) It is stressed that following these rules is necessary for the resolution process:

> For each stage of the discussion, the rules indicate when participants intending to resolve a dispute are entitled, or indeed obliged, to carry out a particular move. They must observe all the rules that are instrumental to resolving the dispute. Any infringement of a discussion rule, whichever party commits it and at whatever stage in the discussion, is a possible threat to the resolution of a dispute and must therefore be regarded as an incorrect discussion move. Fallacies are analyzed as such incorrect discussion moves in which a discussion rule has been violated (Van Eemeren and Grootendorst, 1992, p. 104).

The apparent circle is the following: to understand what resolution is we must understand what critical discussion is. Hence we must grasp what the rules are that need to be observed, or, what amounts to the same, what the fallacies are, i.e., the moves that need to be avoided. But the reason that some rule needs to be observed (or that some move which constitutes an infringement of this rule is fallacious and needs to be avoided) is that this rule is instrumental in resolving the dispute (and that the fallacious move would constitute a threat to its resolution). Hence, we should first grasp what resolution is.

The circle is confirmed in the refined version of the theory:

> Each rule is necessary because every violation of any of the rules is a potential threat to the resolution of the difference of opinion... (Van Eemeren and Grootendorst, 2004, p. 22).

2. HOW VICIOUS ARE THEY?

Circular definitions and explanations need not be vicious. The standard example of nonvicious circularity is the dictionary. A dictionary may define ‘rapid’ as ‘fast’ and ‘fast’ as ‘quick’ and ‘quick’ as ‘rapid’. These definitions are not inane: a person who knows at least one of these three words may come to learn the meaning of the others. It seems that the same holds for the circular explanations in Section 1. For instance, the pragma-dialectical theory will give the meanings of ‘resolution’, ‘critical discussion’ and ‘fallacy’ to whoever knows the meaning of at least one of these terms. Similarly the other explanations will contribute to enlighten some particular audiences. To point out fundamental circularities in some theory’s terminology is, therefore, not to deny that these circular explanations can serve some purpose. Even for those that do not grasp any of the terms involved in a particular circle it may be enlightening to learn how these terms are supposed to be related. So, clearly, the charge of circularity *in definiendo* is not a smooth and easy way to disqualify a theory. A theory with a number of fundamental circularities is not, on that account, out of business, Such a theory can be applied, expanded, refined, etc. Hence, unraveling a theory’s circular definitions is not under all circumstances the most urgent thing to do.

Yet a bothersome itch remains. It is hard to rid oneself of the idea that something is wrong, or at least suboptimal, when explanations of central theoretical concepts are circular. One would expect that a better set-up than the circular one would be possible in some cases at least. If a theory starts with some circular definitions of concepts that are relatively well understood from ordinary language, these circularities may not be bothersome. But if these circularities concern a number of central concepts that are generally seen as in need of analysis, one will sooner or later have to face the task of unraveling these definitions. A suboptimal theory is not useless, but neither is it acceptable as a definitive construct.

In sum, these circular explanations may not present us with flaws, but neither can we condone their presence forever. They constitute at least a challenge: what can we do about them? Below I shall indicate some strategies that one could try.

3. STRATEGIES

Let two terms, *A* and *B*, be given, with two definitions, one for *A* and one for *B*, such that either term occurs in the definition of the other. What can one do to resolve this situation?

Strategy 1: Define either A *or* B *in other terms*

This is the 'don't do it' strategy: don't insert terms in each other's definiens. Simple enough, but the advice may sound cheap when a tangle of interrelated concepts needs undoing. Nevertheless it deserves a try. In the case of argument and proof it may work. Perhaps we should give up the idea that arguments aspire to be proofs or that their function is to be understood from that perspective. That is we could ignore the suggestions found in the dictionaries. Then, if we manage to find an acceptable definition of 'argument', one that is independent of the concept of proof, we may still try to define proofs of some kinds in terms of argument, e.g. as arguments that fulfill some supplementary conditions that guarantee a surplus value of proof over mere argument (Krabbe, 1997, pp. 70-71).

Strategy 2: Define A *and* B *simultaneously*

Examples of simultaneous definition of two (or more) concepts can be found in logic among the inductive definitions. For instance, in the syntax of predicate logic with iota-terms (definite descriptions to be read as 'the *x* such that *x* has property *P*') formulas and terms are defined simultaneously in one inductive definition. Terms are used to construct formulas and formulas are used to construct terms. Therefore, one could say that both occur in the definiens of the other. Nevertheless, this procedure yields a respectable definition, not a circular one.

Perhaps this strategy will work to unravel the concepts of dialogue and statement in a satisfactory manner. One would have to start by giving a definition of very short dialogues, say those with two locutions, one by each participant. The definition should specify which, if any, of the locutions in such a short dialogue would have to count as a statement. Next one should stipulate in what ways a dialogue can be extended by one locution (or some small number of locutions) and which of the locutions in the extended dialogue will count as statements. (It is even possible that extending the dialogue will change the status as to statementhood of some locutions, e.g. that some locution that was not a statement before will after extension of the dialogue become a statement because of its having been challenged.) Thus one may obtain respectable definitions of both dialogue and statement, such that dialogues partly consist of statements, and yet statementhood is determined by a locution's function in dialogue.

Strategy 3: Split A *and* B *each into a number of concepts* A_0, A_1,..., B_0, B_1..., *define each* B_i *in terms of* A_i *and each* A_i *(except* A_0*) in terms of* B_{i-1}

This strategy will replace the original two concepts by a larger number of concepts. Hence, some of the conceptual structure of the original theory must be sacrificed. On the other hand, respectable definitions may be found for all the new concepts and much of what the circular definitions stipulated about the old concepts may be preserved in the relationships between some of the new concepts.

If we try this strategy to tackle the problem of argumentation and rationality, we must either begin with a primitive concept of rationality that does not presuppose any kind of argumentation, or a primitive concept of argumentation that does not presuppose any kind of rationality. I shall take the latter route. For this purpose I imagine a species (not necessarily conscious) that possesses an elaborate system of warning signals which over some millions of years has evolved into the habit of supporting, under circumstances, claims by reasons. At least, superficially, that is what they seem to be doing. Some reasons are good and some are not so good, but the species has evolved to become fairly good arguers. However they themselves are not aware of these activities, nor do they evaluate them. Their activities I call zero level argumentation.

Suppose now that because of some mutation a certain tribe among this species gains the capacity to understand and evaluate the arguments. This I call zero level rationality. The activity of supporting claims by reasons that depends on zero level rationality, that exhibits and increases it, I call first level argumentation. Perhaps one may go on to ever higher levels of rationality and argumentation, perhaps there is a fixed point. What has been illustrated is that along these lines one may hope to achieve respectable definitions, while retaining some of the desired relationships between argumentation and rationality.

Strategy 4: Combine some of these strategies

We shall use strategies 1 and 3 to get a grasp on the circularity problem with the concepts of fallacy, resolution, and critical discussion. Following Van Laar (2003, pp. 170-171), and using strategy 3, we shall distinguish three (or more) types or, as we shall say, levels of discussion originating in a difference of opinion. At each level we say that the difference of opinion has been resolved if the discussion developed according to the constitutive rules of that level and moreover the difference of opinion was ended by the discussion. At each level we say further that a fallacy was committed if there was an infringement of the constitutive rules of that level. At each of the levels separately one may then first define a concept of discussion by stipulating the constitutive rules of discussion at that level. Once the concept of discussion is available, we may use this concept to introduce the concepts of resolution and fallacy at the same level. Thus at each level we use strategy 1.

At the first level one may use the pragma-dialectical rules for critical discussion as constitutive rules. Or, if one is not satisfied with those rules, one may put in an alternative set of rules. In either case we get a concomitant concept of fallacy and one of resolution. But what we can no longer say is that these rules are recommendable because only they can bring about resolution. It is simply true by definition that there can be a resolution only if the rules are followed, so that fact will not provide a motivation to have these particular rules. The rules must be motivated from our experience and our best insights and further be open to criticism, revision, and replacement.

At the higher levels the constitutive rules of the lower levels figure as regulative rules, so that at each level a discussion can be described as an attempt to have a discussion at the preceding level (Van Laar, *loc.cit.*). For instance, in a discussion at the second level, certain first level fallacies will no longer be excluded by the constitutive rules, but the discussants try to avoid these fallacies. If they nevertheless commit one, and this is noticed, there are certain procedures for repairs. The idea goes back to Hamblin (1970, Ch. 9). Van Laar's Ambiguity Dialectic constitutes a fully elaborated example (2003). At the third level one can place

discussion that attempts to realize an instance of Ambiguity Dialectic or some other second level system, with constitutive rules that are even more permissive.

The concepts of resolution at the higher levels will be rather weak, since having a resolution at these levels does not imply having one at a lower level. For instance, what does it mean to have a resolution at the second level? One may have argued one's case at this level and neither party may have committed any fallacies that pertain to that level, yet one may have committed some fallacies that pertain to the first level and that went unnoticed. If then the other party gives in and agrees to accept the argument and its conclusion, it will, by definition, be the case that the difference of opinion has been resolved at the second level. The participants will, however, believe it to have been resolved at the first level. So resolution at the second, or a higher, level means no more than that the participants made an effort to resolve their difference of opinion at the first level and assume they succeeded in doing so.

Nevertheless, the concepts of discussion at higher levels are useful to yield a more realistic theory of argumentation. Typically, in real life argumentation, some sort of rationality may be respected, but not achieved. Yet these attempts to have a critical discussion must be distinguished from activities meant to settle, but not to resolve, a difference of opinion.

We can now rescue one of the intentions of the circular definitions of critical discussion and resolution, namely the idea that the rules of critical discussion are necessary because they give us the means to resolve a difference of opinion. We saw that the rules at the first level cannot be motivated in this way. However the rules of discussion at the second (and higher) levels can be motivated by their instrumentality to achieve a resolution at the first level. This will not be trivial or circular, since resolution at the first level is defined in terms of discussion at the first, not the second, level. In this way the circularity can be resolved, while at the same time some of the intentions of the circular definitions are retained.

4. CONCLUSION

It appears not so easy to mark circular definitions straightforwardly as vicious or nonvicious. Generally, circles are undesirable and one would prefer not to have them. But if one sees no way to get rid of them in a fast and easy way, they can be shelved for a while. Sometimes we must patiently wait until we are better equipped to deal with them.

Then, once the day has come to take these problems down from the shelf, we need not despair. A number of strategies are available to restructure a terminology so as to free it from its most vicious circularities.

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