Argumentation (2011) 25:199–227
DOI 10.1007/s10503-011-9209-8

The Ways of Criticism

Erik C. W. Krabbe · Jan Albert van Laar

Published online: 30 April 2011

Abstract This paper attempts to systematically characterize critical reactions in argumentative discourse, such as objections, critical questions, rebuttals, refutations, counterarguments, and fallacy charges, in order to contribute to the dialogical approach to argumentation. We shall make use of four parameters to characterize distinct types of critical reaction. First, a critical reaction has a *focus*, for example on the standpoint, or on another part of an argument. Second, critical reactions appeal to some kind of *norm*, argumentative or other. Third, they each have a particular illocutionary *force*, which may include that of giving strategic advice to the other. Fourth, a critical reaction occurs at a particular *level* of dialogue (the ground level or some meta-level). The concepts here developed shall be applied to discussions of critical reactions by Aristotle and by some contemporary authors.

Keywords Aristotle · Critical reaction · Criticism · Finocchiaro · Freeman · Pollock · Snoeck Henkemans · Strategic advice

1 Introduction

1.1 The Notion of a Critical Reaction

The notions of criticism and of argument are very much related, both at a practical and at a theoretical level. In practice, a critical attitude is often manifested by "being argumentative" in one's comments and appreciations, whereas arguments are associated with a critical stance sooner than with a constructive one. In daily

E. C. W. Krabbe (✉) · J. A. van Laar (✉)
University of Groningen, Groningen, The Netherlands
e-mail: e.c.w.krabbe@rug.nl

J. A. van Laar
e-mail: j.a.van.laar@rug.nl

parlance, both "criticism" and "argument" even share some negative connotations, such as meddlesomeness and quarrelsomeness. In the theory of argumentation, there are no such connotations, but the theoretical concepts of criticism and of argument are all the same closely related. Argumentation can be either critical (opposing someone else's point of view) or constructive (defending one's own point of view) or both. Moreover, some sort of critical stance is often seen as essential for all argumentation, including the constructive kind, since argumentation is conceived as an instrument to overcome doubt, and doubt seems to imply a critical stance. In pragma-dialectics, the normative model for argumentation proposed is that of a critical discussion in which standpoints are critically tested (Van Eemeren and Grootendorst 1984, 1992, 2004). Also, at the intersection of argumentation studies and artificial intelligence, dialogue protocols and models for persuasion dialogue have been developed that start from the assumption that argumentation and criticism are closely interwoven (Prakken 2005; Parsons et al. 2003). Thus criticism seems not only to lie at the origin of argument, but also to pervade the whole argumentative procedure.

But then, there is not just one kind of criticism. Merely expressing critical doubt is certainly different from expressing an opposite point of view, and expressing such a point of view is again different from arguing for that point of view. All three are different from raising specific objections against a point of view, or against an argument, or against parts of an argument, or against the arguer, or against the circumstances in which the argument has been presented. This paper purports to contribute to a systematic characterization of these and other kinds of critical reaction and thus to contribute to the dialectical approach to argumentation. In this, others have preceded us (Aristotle 1976; Finocchiaro 1980; Freeman 1991; Snoeck Henkemans 1992; Pollock 1995; Govier 1999; Johnson 2000; Walton 2010), and we have ourselves each attempted to contribute to this enterprise as well (Krabbe 2007; Van Laar 2010).

In this paper, we deal with the term "criticism" in the sense in which the term pertains to negative evaluations, rather than in a sense that also pertains to positive evaluations. (Nevertheless, such criticism can itself be called *constructive* when making valuable contributions to a discussion.) We aspire to discuss negative critical reactions in a wide sense, encompassing such criticisms as pertain to (expressions of) propositions, arguments, parts of arguments, and (the applications of) argument schemes, as well as those pertaining to arguers and institutional circumstances—criticisms which relate to such issues as understandability, admissibility, validity, appropriateness, reasonableness, consistency, timeliness, and civility. But we shall not discuss such aspects of critical reactions as fail to contribute to the contents of an argumentative exchange. Thus one could "critically react" to an opponent by grabbing his shoulders and shaking him gently. Would this add content to the exchange? Of course, it might. If in some culture or in some special circumstances, this would be the way to express that one disagrees with the opponent's point of view, it would as such add some content and be among the critical reactions we intend to cover; however, the circumstance that the expression of disagreement is performed by grabbing and shaking, rather than by a speech act, will not be part of our concerns. And then, the grabbing and shaking may also fail to express anything that must be taken into account as a part of the argumentative

exchange, and thus fail to be part of our concerns altogether. From now on, we shall use the term "critical reaction" exclusively for those (aspects of) reactions that do contribute to an argumentative exchange (dialogue).

It should be mentioned that not all reactions in dialogue are critical. Reactions of agreement or acceptance, or requests to grant a concession would not count as such. The same holds for elucidations and explanations of earlier contributions, and indeed for arguments offered in response to criticism.[1] What is missing in these reactions is a negative evaluation of the move they react upon or at least a suggestion that such a negative evaluation may be forthcoming. One might stretch the concept of critical reaction to the extent that an elucidation of one's earlier contribution would count as criticism of a request for elucidation, and that arguments would count as criticisms of doubts or requests for arguments. One might also claim that acceptance of a statement is a criticism of that statement as being superfluous, since one agrees. Taking this line, all reactions in dialogue could be said to be critical in some sense. In this paper, we shall not go that far, but exempt from the realm of critical reactions those reactions that merely comply with the requests (to accept, to elucidate or to argue) contained in the move one reacts upon. We do so because of the lack of obviousness of the negative evaluation content of such reactions, if any.[2]

1.2 The Approach in this Paper

Rather than straightforwardly heading towards a general classification of types of critical reaction—based upon a division of genera into species—we propose, as a first attempt, to characterize critical reactions in terms of four parameters or factors (Sect. 2): the *focus* of a critical reaction (Sect. 2.1), the *norm* appealed to in a critical reaction (Sect. 2.2), the illocutionary *force* of a critical reaction (Sect. 2.3), and the *level* at which a critical reaction is put forward (Sect. 2.4). Each parameter can take several values, which are characteristic features of critical reactions of certain types.

Thus, the parameter of *focus* allows a critical reaction to be characterized by its focus on (a part of) a move or contribution of a particular kind by the interlocutor;

[1] There are more moves that are not critical. Consider for example the move of calling into question in the confrontation stage of a critical discussion. Calling into question may sound as if it implies some criticism, but actually the move by which a party in the confrontation stage of a critical discussion *calls into question* the standpoint expressed by the interlocutor is merely aimed at expressing a neutral stance towards the standpoint and not directly at getting the other side to make repairs (Van Eemeren and Grootendorst 2004, 136). Therefore, calling into question in the confrontation stage is not yet really critical. However, the move in the opening stage by which the antagonist *challenges* the protagonist to defend his standpoint (2004, 137) and the move in the argumentation stage by which she *attacks* a standpoint of the protagonist in the sense of *posing a request for an argument* (2004, 143–144), are clearly critical reactions, as we understand them.

[2] Our notion of "critical reaction" is both wider and narrower than what Van Eemeren et al. defined as the speech act of criticism, the essential condition of which is: "The speaker, *S*, says or does something that counts as a negative evaluation of the actions or attributes of the target, *T*" (1993, 109). Unlike a critical reaction, as we understand that term, this speech act of criticism need not be a reaction to a dialogue move. Moreover, this speech act seems to exclude requests for arguments or requests for clarifications, which do not by themselves count as a negative evaluation but merely allude to the possibility that such a negative evaluation may result.

for instance, on the conclusion of an (elementary) argument, or on one of its premises, or on its connection premise. In fact any contribution or part of a contribution in an argumentative exchange can be at the focus of some critical reaction, critical reactions themselves not excluded.

The parameter of *norm* allows a critical reaction to be characterized by a norm appealed to in the criticism, for instance a rule of critical discussion that the critic claims to have been violated. But violation of norms is not the only ground for criticism, nor is a charge of norm violation the only way norms are appealed to in critical reactions. The norm may also be appealed to merely because the criticism puts one's interlocutor under some kind of obligation, as for instance when a critic expresses critical doubt vis-à-vis a standpoint taken by his interlocutor.

The parameter of *force* allows a critical reaction to be characterized by the illocutionary force of the speech act used. Thus, critical reactions may come forth as directives, for instance as recommendations, requests, or challenges, but also as assertives, for instance as accusations, and also of course as arguments.

The parameter of *level* allows a critical reaction to be characterized by the level at which it is put forward. A critical reaction can aim at eliciting a response from the proponent that contributes directly to the construction of the proponent's case, and thus constitute a ground level move. Alternatively, a critical reaction can belong to a dialogue about the ground level dialogue and thus aim at influencing the course of the latter dialogue, and only in that indirect manner contribute to the construction of the proponent's argumentation. This latter critical reaction constitutes a meta-level move.

Though, by examining these parameters we do not claim to provide a complete typology, we aspire to contribute to a systematic conceptual analysis of the various ways of criticism. A characterization of the distinct kinds of critical reactions will be helpful, for example, when trying to understand various reactions in an argumentative discourse. But also the development of models or protocols for reasonable persuasion dialogue will be facilitated by theoretically motivated characterizations of critical reactions. Finally, given the wide terminological and conceptual divergences in the area of critical reactions, we hope these parameters facilitate the making of reasoned choices. After having expounded and illustrated in Sect. 2 the main features of our system of characterizing critical reactions (based upon Van Laar 2010), we shall perform a first test of the system by discussing in our terms in Sect. 3 Aristotle's notions of objection and criticism, and in Sect. 4 some contemporary approaches to critical reactions.

2 Four Parameters

As explained above, we expect that each fully developed and articulated critical reaction can be characterized in terms of four parameters or factors: focus, norm, force, and level. In the case of a particular critical reaction, each parameter will take on a specific value (or, equivalently, each factor will be specified by a specific feature of the critical reaction). We shall deal with these parameters in turn.

2.1 Focus

Each critical reaction has a *focus*, which functions as a precondition for a critical reaction of a particular type (cf. Wells and Reed 2005). This may be a focus on a move of a particular type, or on a special part of a move, or on a sequence or combination of moves, put forward by the interlocutor, and possibly reconstructed by the critic. Because one can take a critical stance towards any kind of contribution, each type of speech act in an argumentative exchange can be at the focus of a critical reaction. What is more, each argumentative move can be seen as having four aspects: it expresses a particular *proposition*, by employing a particular *locution* put forward with a particular illocutionary force, by a particular *person*, within a particular *situation*. So, the focus of a critical reaction, besides being aimed at a particular kind of speech act, can be *propositional*, *locutional*, *personal* or (in other respects) *situational* in character. We shall first list the most prominent kinds of focus and then discuss these aspects.

First, a critical reaction can focus on (parts of) an elementary argument as reconstructed by the critic. An elementary argument is an illative core of a (possibly more complex) argument, having just one justificatory step. It contains a standpoint (or conclusion) and a set of premises (reasons) containing exactly one connection premise (cf. Walton and Krabbe 1995, 128). The connection premise is a conditional statement, having the conjunction of the other premises as its antecedent and the standpoint as its consequent, which—within an argumentative context—expresses the commitment to accept the standpoint as soon as one has accepted the reasons in the antecedent. Often, the connection premise remains implicit, and in such cases the procedure for making it explicit is straightforward.[3]

One of the parts of an elementary argument a critical reaction can focus on is the standpoint advanced by the proponent. This may happen before the elementary argument has been advanced—and in fact elicit the argument. Such a critical reaction may be focused on an expression of an opinion by the interlocutor, whether this expression has been marked as a standpoint or not (if not, the criticism will turn the expression of opinion into a standpoint, see Houtlosser 2001, 33). Of course, critical reactions can also focus on other parts of an elementary argument, or on a combination of parts. Where critical reactions on individual parts of an elementary argument are concerned, a threefold distinction can be upheld: such a critical reaction focuses on a standpoint or on a reason advanced in support of a standpoint (turning that reason itself into a substandpoint), or on a connection premise (on the three ways hypothesis, cf. Walton 2010). Comparing this three-fold distinction with the criteria for good arguments in Informal Logic, it is clear that critical reactions to the standpoint are not connected with any of these criteria, but the criticism of a reason corresponds to the criterion of acceptability whereas the criticism of a

[3] If the connection premise is found among the explicit or reconstructed premises there is no other connection premise that must be reconstructed. If the connection premise is not found among the explicit or reconstructed premises, it will be an implicit premise that must be reconstructed. The procedure for reconstructing the connection premise is not complicated by the goal of finding a pragmatic optimum (cf. Van Eemeren and Grootendorst 2004, 117–118), or an appropriate general warrant (cf. Hitchcock 2006, 214).

connection premise may either involve the criterion of sufficiency or that of relevance (Johnson and Blair 1983, 34). The distinction between the latter two cases is not one of focus but rather one of strategic advice (discussed below in Sect. 2.3; see also Sect. 4.4).

It can be useful to characterize a critical reaction on an elementary argument in more detail as being focused on a special type of reason belonging to a specific argument scheme (Garssen 2001) or kind of argumentation. For instance, a reaction could focus on the "normality premise," belonging to defeasible arguments, which expresses that circumstances are not exceptional, or it could focus on the "desirability premise," belonging to the pragmatic argument scheme (a kind of practical reasoning), which expresses the desirability of a particular goal.

Second, a critical reaction can focus on a more complex argument, such as a basic argument that is built up from several elementary arguments (cf. Walton and Krabbe 1995, 129). This happens when it is pointed out that there occurs a shift in the meaning of a particular term in the course of a chain of arguments, or when it is alleged that a chain of arguments is circular and begs the question, or when it is shown that various parts of the complex argument are mutually inconsistent. The critic can also charge the arguer of having made mistakes in suppositional arguments: for instance, when the arguer has derived an absurdity after having introduced a supposition to be refuted, but then subsequently misidentifies the responsible premise (see Aristotle (1965) in *Sophistical Refutations 5* on the fallacy of *non causa*, 167b21-36).

Third, the focus of a critical reaction can be on a kind of argumentative move that does not itself present (a part of) an argument. A challenge, to take an example, can be the focus of a critical reaction when it is alleged that the critic's challenge is inappropriate due to the critic's having conceded the proposition at issue at an earlier stage. In a similar vein, one can critically react towards requests for clarification, for example because any further clarification would be superfluous. In such cases, a request can be pictured as a delaying tactic. More in general, a critical reaction can be focused on any kind of critical reaction. But there are also other moves that one can critically react to, for instance proposals. When one party, defending a standpoint, proposes a premise that is to function as a shared point of departure, a possible critical reaction by the other party could be that accepting that premise as a starting point would come down to accepting the standpoint. The critical reaction, in such a case, is aimed at preventing an arguer from begging the question.

Fourth, a critical reaction can focus on a combination of argumentative moves (which could all be different from moves needed for constructing an elementary or complex argument). For example, it could be pointed out that one's opponent refuses to concede a proposition that is immediately implied by a proposition granted earlier. In that case the criticism focuses on the combination of the present move of refusal and the earlier move of concession.

When focusing on such (parts or combinations of) moves of the interlocutor, the emphasis can be on one or other of the four aspects of a move. Consider first *propositional critical reactions*. If such a reaction focuses directly on the content of a standpoint or of a reason, it can be called a *tenability criticism*, "Why *P*?"

(Krabbe 2002, 161); if it focuses on the content of a connection premise, it can be called a *connection criticism*, "Why would I be committed to Q if I were to concede P in the current circumstances?" (cf. Krabbe 2002, 160).

A *locutional critical reaction* focuses on the formulation of a standpoint, reason or connection premise, or of some other contribution, and expresses a criticism of the understandability of the contribution. It may either be concerned with unclarity of the propositional content or with unclarity of the illocutionary force of the contribution. In the *first* case, it aims at getting the speaker to indicate in more detail what proposition he tries to express, "What do you mean by *P*?"; or it aims at pressing him to adapt his formulation on some other ground, for example because the terminology is biased, or distasteful. A locutional criticism concerned with unclarity of propositional content can also focus on a complex argument when pointing out a fallacy of equivocation, or when pointing out the lack of terminological coherence in the opponent's set of commitments. In the *second* case, when the illocutionary force is unclear, a locutional criticism aims at getting clearer about the kind of speech act performed by the other side: is he offering an argument or an explanation? Is this multiple argumentation or coordinative argumentation? Is this a mere concession or a stronger kind of commitment?

A *personal critical reaction* "attacks" the person who brought forward an argumentative contribution, for example by saying something like "you're not in a position to argue in favor of (or: against) *P* in a credible way due to a general flaw in your character (or a specific bias, etc.)" or "You shouldn't argue about Burma; you have never been there."

A *situational critical reaction* can point out that the circumstances of the dialogue are such that the other side's contribution is inappropriate. For instance, it can be told to the interlocutor that he has performed an inappropriate kind of speech act: he should not himself have made a *concession* for he is in the present dialogue the proponent in an unmixed interchange and therefore is not to *make* concessions to defend his standpoint, but to *employ* concessions made by the opponent in order to do so. Or, external circumstances may make a move inappropriate: "Defending this very standpoint in the current societal circumstances enhances violence," or "Challenging proposition *P* is impolite and therefore not allowed in this family." Though directed at a particular person and sometimes implying a personal attack, the focus is on the situation rather than just on the person.

2.2 Norm

Each critical reaction appeals to a particular kind of argumentative norm. One can relate to a norm in various ways. One merely *follows* a norm, without appealing to it, when one fulfills the obligations prescribed by the norm. For example, if, when one is supposed to provide an argument if asked to do so, and is indeed asked to do so, one provides an argument. One merely *utilizes* a norm, again without appealing to it, when one makes use of a right provided by the norm. For example, one utilizes the norm according to which the parties can take turns, simply by performing one's move when the interlocutor has finished speaking. However, one *appeals* to a norm by putting forward a critical reaction (of a kind that is sanctioned by the norms) in

order to put some pressure on the interlocutor to respond in a certain way. So, by challenging a standpoint, the critic is utilizing the freedom rule (also called Commandment 1, Van Eemeren and Grootendorst 2004, 190) which allows her to challenge, but she is also, although implicitly, appealing to the obligation-to-defend rule (Commandment 2, ibid., 191) in order to press the arguer to present an argument. One appeals to a norm, in the special sense of *emphasizing* it, in case the critic not only appeals to the norm, but is also rubbing it in, meaning that she is more or less clearly conveying the message that her critical reaction is pertinent because of the fact that this norm is operative. So, when the critic puts forward a challenge, and in addition stresses that the arguer is under the obligation to provide an argument, she is quite explicitly emphasizing a burden of proof rule. Below we shall repeatedly give examples of these two ways of appealing to norms (implicitly, and explicitly by emphasizing the norms). In the remainder of this subsection, however, we shall concentrate on the distinction between three *kinds* of norms, rather than on ways to refer or appeal to them.

First, there are the so-called *rules for critical discussion* (a normative model for persuasion dialogue). These rules mark the distinction between argumentatively reasonable and unreasonable dialogue moves (*fallacies*). A critic may charge an arguer with having violated one of these rules. Such a charge would amount to an appeal to the rule in the sense of emphasizing. Of course the charge may be ill-founded. When a critic appeals to a norm that she considers to be part of the constitution of genuine critical discussion but we do not, her critical reaction must be seen by us as an incorrect appeal to a rule for critical discussion.

Second, there are *norms of optimality*, which mark the distinction between argumentative moves that are really good and those that, though not fallacies, are unsatisfactory in some argumentative respect (*lapses* or *blunders*). For instance, if a proponent can choose between a stronger and a weaker argument, the stronger argument is to be preferred (cf. Krabbe 2001, on the discussion rule "Try to win"). Since one's lapses or blunders are usually "advantageous" for one's interlocutor, the latter may leave them unnoticed. But she may also point out that the argument, though not fallacious, is flawed and therefore unconvincing. External observers of an argumentative discussion often appeal to optimality norms to criticize the participants.

Third, there are the so-called *institutional norms*. Argumentative norms that are institutional can be seen as marking the distinction between dialogue moves that are appropriate within the institutional setting, and those which are inappropriate within the setting. In the latter case we may speak of *faults*. In contradistinction to the rules for critical discussion, these norms are not part of the general explication of argumentative reasonableness. However, they do apply in particular types of context, where the participants use argumentation for special purposes that supplement the goal of resolution of a difference of opinion, for instance the purpose of resolving the difference of opinion in one's own favor (Van Eemeren and Houtlosser 2002). Van Eemeren and Houtlosser discuss these institutional settings as "argumentative activities" (2005, 76–77; cf. Van Eemeren 2010, Ch. 5). For example, when engaged in legal proceedings, additional rules apply to the argumentative moves put forward by the participants, for in order for the difference

of opinion to have been resolved in a manner that is not merely dialectically reasonable but also legally admissible, various additional constraints must have been taken into account. These additional constraints can be emphasized as norms in critical reactions. For example, in a legal context, one could think of a critic charging the other side with having proposed as a shared starting point a proposition reflecting evidence that was obtained by legally inadmissible methods.

We take the idea of an institution in a broad sense, including rather mundane activities such as having a colloquial conversation, or discussing current affairs, in addition to more formalized activities such as being engaged in a lawsuit, a parliamentary discussion, a public debate or a debating contest. Norms to the effect that particular topics are, within certain circumstances, not up for debate, or to the effect that certain character traits or personal circumstances can disqualify a person as a serious participant can be regarded as special norms that characterize some (and not all) argumentative activities.

2.3 Force

A third parameter to be used for characterizing the ways of criticism is that of the illocutionary force of a critical reaction. Conspicuous here are reactions in the form of requests, assertives, and strategic advice.

2.3.1 Requests

First, a critical reaction, whatever the norm appealed to and whatever the focus, can be put forward as a directive in the form of a *request*; either for argument or for clarification. Requests for argument (or: challenges) have a propositional focus, "Why *P*?," whereas requests for clarification have a locutional focus, "What do you mean by formulation *P*?" In both cases, the request aims at an extension of the argument as constructed at some stage of the dialogue. Requests utilize the rules for critical discussion, and appeal to them in an implicit manner. By filing a request for an argument or a clarification, the critic is capable of pressing the arguer to provide the requested argument or clarification on the basis of certain rules for critical discussion. The implicit, normative appeal of a request for an argument would, if made explicit, yield something like: "in order for you to fulfill your burden of proof, as laid down in Rule 3 for critical discussion, or Commandment 2 of the code of conduct (van Eemeren and Grootendorst 2004, 139 and 191), you must provide an argument as requested." The urgency of a request for clarification becomes clear from a similar message, which could be made explicit to yield: "in order for you to adequately express yourself, as required in Rule 15 for critical discussion or Commandment 10 of the code of conduct (Van Eemeren and Grootendorst 2004, 157 and 195), you must provide a clarification as requested." Normally, the reference to the applied rules remains fully implicit in such requests; however, the normative appeal can be made explicit along the lines indicated, in which case the norms are emphasized, rather than merely appealed to implicitly.

2.3.2 Assertives

Second, instead of merely requesting an argument or a further explication, a critic can reconstruct and negatively evaluate (a part of) a contribution by the other side, by making an *assertion* to the effect that there is a flaw of some kind in the interlocutor's contribution. Critical reactions such as these have been dealt with by Finocchiaro as "active evaluations" (1980, 339). When pointing out a flaw, the critic is actively taking part in the discussion about the matters at issue in the criticized contribution by putting forward a negative evaluation in which she appeals to one or more norms: the flaw needs repair. The critic can do so but nonetheless refrain from alleging that her interlocutor has been unreasonable on the ground of having violated some rule for critical discussion (a norm of the first kind) or inept on the ground of having violated some institutional norm (a norm of the third kind).

One prominent way of pointing out a flaw is to deny a proposition that has been expressed or employed by the interlocutor or to assert a proposition that implies a denial. Such denials come in two kinds, depending upon the messages conveyed to the other participant. The most familiar kind of denial is the *strong denial*. With a strong denial, "not *P*," party A conveys the message that A will be able to defend the negation of *P* against B's critical testing. Such a counterstandpoint does carry a burden of proof, when challenged. So, besides being critical, such a move is constructive, generating a mixed dispute in which argumentation (for *P*) is parried by counterargumentation (argumentation for not-*P*).[4]

A second kind of denial is the *weak denial*. If party A denies a proposition *P* that has been used by party B, saying "not *P*," this may convey—instead of an assertion of the negation of *P*—merely the relatively weak message that B has not been and will not be able to defend his standpoint that *P* vis-à-vis party A. A weak denial is not itself a kind of standpoint that requires a defense when challenged. Instead, it expresses a strategic expectation to the effect that, according to A's assessment, party B will not be capable of constructing a case for his main standpoint that will turn out to be convincing for A. As such, a weak denial implies more than a mere expression of doubt. If requested to *defend* "not *P*," party A can justifiably answer "It is not my opinion that *P* is not the case, and therefore I am not willing to present an argument in favour of 'not *P*'; instead I am evaluating negatively your strategic chances of finding an argument that will convince me of *P*." A weak denial does, however, come with an obligation for the critic to be open about her considerations that brought her to this assessment: what makes her think that B lacks the means for persuading her? So, there is, instead of a straightforward burden of proof, a kind of burden of giving some explanation, be it that this burden will have to be rather limited considering that the critic herself may not have full access to the grounds of

[4] This notion of counterargumentation is different from Van Eemeren and Grootendorst's notion of "contra-argumentation" which they define by way of felicity conditions (1982, 9–10; 1984, 43–45). These conditions suggest that contra-argumentation is always put forward as a critical reaction to a standpoint of the other. But this is not borne out by other remarks by these authors, which imply that contra-argumentation can be simply understood as argumentation for a negative standpoint and so does not need to be a critical reaction (1984, 81; 1992, 17).

her assessment (see our 2012). In short, a weak denial will always be a purely critical move, rather than a constructive one.[5]

If the focus of a weak or strong denial is on the propositional content of the connection premise, the critic is pointing out a justificatory flaw. But justificatory flaws can also be pointed out by assertives other than by denials, for example by assertives presenting a counterexample. Methods using assertives, other than denials, for pointing out flaws can also be found in critical reactions in which it is alleged that a formulation used by the other side contains biased terms or harmful ambiguities. Or when the evidence is pictured as legally inadmissible; or when it is held that the interlocutor has exceeded the time limit.

An opponent who puts forward a negative qualification of a target argument, by way of some kind of denial or otherwise, can choose to add arguments in support of this qualification and also choose to use the qualification in support of a further evaluative stance. Such compound critical reactions are discussed by Krabbe (2007, 60–61) under the heading of *strong objection*. A strong objection, according to this analysis, shows the following anatomy. First, a strong objection contains a reference to *features* of the target argument. For example, it could be shown by empirical means that the target argument does not contain any mention of a well-known counterconsideration, or it could be shown by way of logical analysis that the logical form of the target argument admits of a counterexample. Second, a strong objection contains a *substance* that is a characterization of the target argument as, for example, incomplete or invalid. Third, in the *substantive argument* of a strong objection, the features of the target argument are put forward in support of the substance. Fourth, there is a *verdict* that is an evaluation of the target argument (on a quantitative or qualitative scale) as, for example, defective or shaky. Fifth and finally, in the *evaluative argument* of a strong objection, the substance is put forward in support of the verdict. (Of course, a critic can leave one or more parts of the strong objection implicit.) The arguments of a strong objection fulfil a constructive role, in so far as they are attempts to convince the proponent of the correctness of the verdict. But these arguments play, in addition, a critical role in so far as they provide the considerations that count against the argument. The same considerations, however, can be used by the proponent when developing a persuasive strategy. We shall now turn to this aspect of criticism.

2.3.3 Strategic Advice

Third, when raising a challenge or when pointing out a flaw, party A can choose to accompany this critical reaction by some of the counterconsiderations that party B must take into account when making further decisions as to whether and, if so, how to proceed in his attempts to persuade A of B's standpoint *P*. Within an argumentative context, these counterconsiderations function as directives conveying *strategic advice* to B. Such strategic advice is critical in so far as it conveys the message that a negative evaluation is forthcoming if the proponent will turn out to

[5] This notion of a weak denial resembles what Rescher discusses as "cautious denial" (1977, 9), which expresses that P is not the case "for all that you (the adversary) have shown" (p. 6).

be incapable of defusing the counterconsideration. We will provide a few examples.[6] First, a challenge can be accompanied by a consideration that explains to B why A is critically disposed to *P*. The message to B then is that B must adapt his persuasive strategy in such a way that this motive for a critical stance will be defused. For instance, a challenge directed at the connection premise, "Why if *P* then *Q*?," can be accompanied by the counterconsideration that *P* does not suffice to establish *Q* (conveying the message that additional reasons should be supplied or that a specific objection should be met), or by the counterconsideration that P is not clearly relevant for Q (conveying the message that argumentation must be supplied to show the relevance; see Snoeck Henkemans 1992, 89–93; 2003, 408–410). Second, it has been stated above that weak denials should generally be accompanied by considerations that explain why party B will turn out to be unable to persuade A. But such considerations would of course be overruled if B were to defuse them in some way or other. Hence they provide strategic advice for B. Third, strong denials can be accompanied by counterargumentation. Such argumentation can fulfill two functions: a constructive persuasive function (persuading B of not-*P*), but we refrain from discussing this function since we are concerned with critical, rather than with constructive moves. In the present context it is more to the point to stress the function of providing party B with considerations that must be refuted before party A will retract her critical doubt towards *P*.[7]

2.4 Level

The fourth and last parameter is that of level. The distinction we have in mind has to do with the directness with which a dialogue move contributes to the argumentation in favour of one of the standpoints adopted in the discussion. Quite direct contributions will be located at the ground level dialogue, while more indirect contributions—moves that are about the dialogue rather than about the issue at hand—are to be located at the next meta-level of dialogue or at levels even higher up in the hierarchy (Krabbe 2003). Although it is difficult to draw a borderline, we think such a distinction can be upheld.

Clearly, a move in which a proponent puts forward an argument in favour of a challenged proposition, or in which a critic puts forward a counterargument against some part of the argument of the other (and so in favor of some kind of strong denial), contributes directly to the issue discussed, and so this move will be a ground

[6] The notion of strategic advice will be further developed in our (2012).

[7] In Rescher (1977) two notions occur that resemble such counterconsiderations, namely "provisoed denial" (pp. 6, 9) and "weak distinction" (p. 12). In a provisoed denial of *P* the opponent expresses something of the form: "*Q* is the case for all that you've shown and *Q* constitutes *prima facie* evidence for not-*P*". Not-*P* is a weak denial and we may interpret *Q* as a part of the explanation why the opponent thinks P is not (yet) to be accepted. The advice is to defuse *Q* as a counterconsideration to *P*. A weak distinction is a way for the opponent to focus on the connection premise of an argument "*Q* so *P*." A weak distinction is expressed by something of the form: "For all you've shown, both *Q* and *R*, while Q and R taken together provide *prima facie* evidence for not-*P*". Again, "not-*P*" is a weak denial and we may interpret R to be a part of the explanation why the connection between Q and P does not apply in the current circumstances. The advice is to defuse R as a counterconsideration to the connection between Q and P.

level move. The same applies to the clarification of a part of the argument, for example by explaining what was meant by this or that expression. Requests for further arguments or for clarification of an argument will be seen as quite directly contributing to the argumentation in that the response aimed for is an argument or a clarification. So, these moves are considered to be ground level moves as well.

However, if a party's move deals, for instance, with the strategy adopted by himself or by the other side, the contribution may still be seen as dealing with the standpoints at issue, but only indirectly so. The primary topic is a strategy that has been, can be or should be adopted (or not adopted). So, what we have called weak denials can be used for initiating a meta-level dialogue about the proponent's possible strategies. Similarly, moves offering explicit strategic advice are meta-level moves.

An example of an explicit strategic advice can be found in Plato's Euthydemus, where Ctesippus challenges Dionysodorus' claim that Dionysodorus and Euthydemus really know everything:

> Here Ctesippus interrupted: For goodness' sake, Dionysodorus, give me some evidence of these things which will convince me that you are both telling the truth.
> What shall I show you? he asked.
> Do you know how many teeth Euthydemus has, and does he know how many you have?
> Aren't you satisfied, he said, with being told that we know everything?
> Not at all, he answered, but tell us just this one thing in addition, and prove that you speak the truth. Because if you say how many each of you has, and you turn out to be right when we have made a count, then we shall trust you in everything else (*Euthydemus* 294c, Plato 1997, 732).

When a party claims that the other side has transgressed a rule for critical discussion or an applicable institutional norm of some kind, the moves must be seen as being primarily about the legitimacy or appropriateness of part of the preceding dialogue, and thus as initiating and contributing to a meta-level dialogue. When the critic puts forward a negative evaluation by charging her interlocutor with having breached a norm, strongly emphasizing the norm, her evaluation will count as a request for some kind of repair, as is generally the case with pointing out flaws. But in addition, the interlocutor is accused of having put forward a move that hinders or even blocks either the resolution-goal of their discussion (a fallacy) or one of the goals inherent in the institutional activity (a fault). All such charges take place at a meta-level of dialogue.

Charges of faults (in the present sense) occur for instance when party A points out to party B that defending a certain proposition will have unacceptable social consequences (the charge may of course be unjustified). One may think of the self-fulfilling prophecy that ensues when a prime minister too much stresses its country's economical troubles, or of cases where it is said that our adversaries will profit if anyone would take a critical stance towards a standpoint. Also personal attacks can be seen as charges at a meta-level that the interlocutor has violated an institutional norm, in that case a norm to the effect that for instance the arguer's financial

involvement, lack of expertise or insincerity is inappropriate for the kind of discussion at hand. Those personal attacks that are dialectically illegitimate constitute *ad hominem* fallacies.

3 Aristotle on Objections and Criticisms

In this section and the section that follows we shall put our concepts developed in Sect. 2 to the test by discussing in our terms similar concepts that have been used by Aristotle and various contemporary authors.

In the *Topics* and the *Sophistical Refutations* Aristotle puts forward some notions related to our discussion in Sect. 2. We cannot here present a very detailed discussion of these, but shall briefly remark on the various kinds of objection (*enstasis*), of criticism (*epitimêsis*), and of the solution (*lusis*) of unsound arguments. All three can be seen as criticisms in our somewhat wider sense of criticism. The sections on objections, here referred to, are found in *Topics 8.2* and *8.10,* those on criticism in *Topics 8.11*, and a classification of solutions is given in Chapter *18* of *Sophistical Refutations*. Quotes are taken from Forster's translation (Aristotle 1965 and 1976).

In *Topics 8.10* four kinds of objection are described as "ways in which it is possible to prevent a man from bringing his argument to a conclusion" (161a1). Only the first of these ("demolishing[8] that on which the falsehood depends" 161a2) counts as a solution. The other three are: objections against the questioner, objections to the questions (the questions being requests to grant premises), and objections relating to time. All of these are objections that can be used by the answerer in a dialectical discussion vis-à-vis a questioner that is trying to put forward an argument in refutation of the answerer's thesis.[9]

On the other hand, the criticisms in *Topics 8.11* are better seen as comments by an external evaluator of a discussion (Brunschwig 2007, 290 (1); Smith 1997, 138–139). Thus a nice distinction may be made between objections and criticisms (in Aristotle's sense): the first are moves by participants, the second by external evaluators. This could make one think that the distinction between an objection and a criticism in Aristotle would amount to one of *level*. As such, it would equal the distinction between criticism (in our wider sense) on the ground level (participants) and criticism on a meta-level (external evaluators). But here one should be careful: on the one hand, external evaluators may often use the same objections as the participants—for instance solutions of fallacious arguments—, on the other hand participants may shift to a meta-level to become evaluators of their own discussion. Even so, it makes sense to think of objections as primarily belonging to the ground level and of criticisms (in Aristotle's sense) as primarily belonging to the meta-level.

[8] Here "demolishing" (*anairein*) may be understood as presenting a motivated rejection (of a premise).

[9] However, Smith (1997, 138) deems that these four cases "are best seen as criteria for third parties to use in evaluating arguments." Such a use of the four kinds of objection is of course also possible.

Because of the lack of examples of dialogical discussions in the Academy, it is hard to tell what *illocutionary forces* are involved. But one may surmise that for criticisms (by external evaluators) these would be those of assertions and arguments to justify various verdicts, whereas for objections on the ground level such assertions and arguments would be supplemented (explicitly or implicitly) by requests or more forceful injunctions to elucidate, or reformulate, a proposed premise or argument or even to retract the proposed premise or the argument.

The *focus* of an objection or criticism can be on the argument itself or on the behavior of the arguer. In *Topics 8.2* there is a discussion of objections against inductive arguments. In an inductive argument, the questioner tries to establish, as a premise for a deduction, a universal proposition *All A are B*.[10] For this purpose, he adduces several examples of *A*'s that are *B*'s. If the answerer accepts these examples, but is then still reluctant to admit the universal, the questioner may (according to a dialectical norm) demand that the answerer either produce a counterexample (an *A* that is not a *B*) or give in. The counterexample is an objection to the connection premise of the inductive argumentation, but also to the proposed premise *All A are B* itself and hence it also focuses on a part of the deductive argument that the questioner is trying to construct. Dialectical *norms* for decent induction that the answerer may appeal to, oblige the questioner to deal with counterexamples (either demolish them or incorporate them by restricting the scope of the universal). So counterexamples are objections with the *force* of an assertion, but also containing a request to make the required adaptations or to give up establishing the universal by induction.

An objection against an inductive argument supporting a universal premise of a deductive argument may or may not provide a solution of the latter. The same holds for other objections focusing on the premises of deductive arguments. According to *Topics 8.10*, for an objection to yield a solution, it is not sufficient to demolish just any premise: one should demolish the crucial premise, the one on account of which the argument is mistaken and would also be mistaken if different circumstances obtained.[11] So, for objections focusing on premises to count as solutions there is an extra condition. In *Sophistical Refutations 24* a solution is defined as "an exposure of false reasoning, showing on what the falsity depends" (179b23-24). But in *Sophistical Refutations 18*, which gives a classification of solutions, the idea of a crucial premise is not mentioned. Here solutions are classified according to their *focus*: one may either show that the deduction is fallacious or demolish some premise or demolish the conclusion.[12] A solution appeals to the *norm* that arguments should comply with Aristotle's definition of syllogism (deductively valid argument, non-circular and without superfluous premises) and moreover not contain unacceptable propositions. Solutions may be produced by the answerer or by an

[10] In Aristotelian dialectic inductive reasoning serves to establish premises for deductive reasoning.

[11] I.e., if the world were different in some inessential respects.

[12] The first and the last option were not included at all in the list of *Topics 8.10*. The first option constitutes an important kind of objection, shifting the dialogue to a meta-level to discuss the principles of deductive reasoning and the theory of fallacies. The last option seems not to accord with the definition of solution in *Sophistical Refutations 24* since demolishing the conclusion would not pinpoint the responsible premise and thus not really show "on what the falsity depends."

external observer. If a solution is produced by the answerer it has (besides being an assertive) the *force* of a request (or demand) that the questioner retract the argument.

Giving a solution is a kind of devastating criticism of a completed argument. The other objections in *Topics 8.10 focus* on an argument under construction. They differ in their *strategic advice* to the questioner. The objections against the questioner (which, never mind their name, focus not on the questioner but on the argument) try to unsettle the questioner so that he cannot continue the construction of his argument. The implied strategic advice to the questioner suggests that he should give up. The objections against questions, on the other hand, merely prolong the discussion, but do not prevent the questioner from carrying on. The implied strategic advice to the questioner suggests that he should make an effort to get those additional premises accepted that are needed for the argument to succeed. The objection related to time is specified as one "which takes longer to deal with than the present discussion allows" (161a11-12). Here the strategic advice to the questioner suggests that he should give up now, but perhaps try later when more time is available.

The criticisms discussed in *Topics 8.11 focus* on the one hand on the behavior of the discussants and on the other hand on the questioner's deductive arguments. In criticizing the behavior of the discussants an external evaluator may appeal to a *norm* of cooperativeness. The questioner and the answerer have a common task (*koinon ergon*): they should produce good arguments. The questioner should not ask "questions in a contentious spirit" (*eristikôs*; 161b2), and the answerer should not "shew peevishness" (*duskolainein*; 161b9). Criticism of this kind is clearly situated on a meta-level, which is not to say that the discussants themselves could not broach the subject.

The criticisms in *Topics 8.11* that *focus* on the arguments are neatly organized in five (or six) steps. As shown by Smith (1997, 141–142), these criticisms appeal to six virtues of, or *norms* for, good argument:

1. There must be a deduction, i.e., the premisses must imply some conclusion.
2. The premisses must imply the intended conclusion.
3. No premiss must be left out.
4. There must be no superfluous premiss.
5. The premisses must be more acceptable than the conclusion.
6. The premisses must not be more difficult to establish than the conclusion (Smith 1997, 141).

These *norms* make the quality of arguments a matter of degree, insofar as arguments complying with only some of them may still attain some degree of goodness. Moreover they differ in two other respects from the norms appealed to in solutions. On the one hand, they are somewhat milder, since the requirement of acceptability is made dependent upon the acceptability of the conclusion: "the same criticism does not apply to an argument when viewed in relation to the proposition[13] and when taken by itself". This opens up the possibility of using unacceptable

[13] I.e., the "problem under consideration" (Smith 1997, 35), hence the problem whether the conclusion holds or not.

premises to deduce an even less acceptable conclusion. On the other hand, these norms are somewhat stricter, since conditions 5 and 6 (which also block circularity) are added to the norms appealed to in solutions.[14]

A conclusion that could be drawn from this examination of Aristotelian concepts, is that the four parameters we propose are helpful when trying to write up a survey of Aristotle's theory of argumentation. We did not here present such a survey, but all the same hope to have indicated how the Aristotelian concepts of objection, criticism, and solution can be clarified using the four parameters and the related concept of strategic advice.

4 Contemporary Approaches

4.1 Finocchiaro on Active Involvement

In Chapter 15 of his *Galileo and the Art of Reasoning* (1980), Maurice Finocchiaro discusses fallacies and the understanding and evaluation of reasoning or arguments. Unfavorable (negative) evaluation—which according to Finocchiaro is often more interesting than favorable (positive) evaluation—is called "criticism" (1980, 332).[15] On the basis of his study of Galileo's critiques of various Aristotelian arguments (in the *Dialogue Concerning the Two Chief World Systems*) Finocchiaro concludes "that it is both possible and effective to evaluate arguments 'actively' in the sense that the inferential interrelationships among the propositions involved are tested by reasoning on the level of, and largely in terms of, the object argument and by checking whether what follows from asserted premises is the conclusions drawn in the object argument or other propositions." (1980, 339) In dialogical terms: the opponent may join the proponent as an arguer as they discuss the ins and outs of an argument put forward by the proponent, and this may be done on what we called the *ground level* of dialogue.

The *focus* of the criticisms Finocchiaro discusses (1980, 1987, 1997) is always the argument itself, and most often the connection premise, which is the premise that specifies "the inferential interrelationships" between the other premises and the conclusion. In the Appendix of his translation of Galileo's *Dialogue* (1997), he also discusses kinds of criticism with a different focus: *conclusion refuting criticism, premise refuting criticism*, and *reason undermining criticism* (p. 318). The latter two do not differ in focus but in respect of *force*, the first corresponding to what we called a strong denial, and the second to a weak denial, or even just a request for reasons to accept the premise.

The criticisms directed at the connection premise can similarly differ in force, moreover they can take various particular shapes—spelled out in Chapter 17

[14] Rule 5 blocks arguments with acceptable premises and a conclusion that is even more acceptable. A good argument, according to Aristotle, starts from premises that are more acceptable and more familiar than its conclusion. Marta Wlodarczyk (2000, 156) has dubbed this principle the Overarching Principle. This principle seems to be honored by the norms for criticism in *Topics 11*.

[15] According to the "narrow meaning" of "criticism." The broad meaning encompasses both negative and positive evaluation (Finocchiaro 1997, 314).

(Finocchiaro 1980) as pointing to different kinds of "invalidity", which later were described as six types of fallaciousness (Finocchiaro 1987; reprinted 2005) or "types of disconnection" (1997, 316)—but, to put it bluntly, all these criticisms claim that the conclusion does not follow from the premises (1987, 267; 2005, 133), or at least call into doubt that it would follow from them. The differences between the types lie in the arguments offered to substantiate that claim, or to underpin the doubt.[16]

The dialectical *norm* appealed to in these criticisms is evidently that the arguments offered by a proponent should be improved until they are such that the conclusion follows from the premises.[17] Finocchiaro (1987, 2005) does not explain what "following from" means. In our view "following from" need not be understood in the sense of deductive validity: rather it is a contextual notion referring to there being in a specific context no further objections to an inference step (cf. Finocchiaro 1980, 422–423). Thus, with respect to the parameter of *force*, we may notice that the criticisms (when used in dialogue) contain not only (usually) a claim and (often) arguments, but also direct (by request or advice) the proponent to improve his argument taking into account the counterconsiderations brought forward.

As to the *level*, we saw that these criticisms could take place at the ground level, but it is not of course excluded that the participants take more distance from the object argument and get involved in a meta-dialogue about ways of arguing. Finocchiaro's use of the term "fallaciousness" may even suggest this, since a discussion about fallacies, as we understand them, typically takes place at a meta-level of dialogue. However, Finocchiaro is quite explicit about preferring the weaker term "fallaciousness" to the term "fallacy" (1987, 266–267; 2005, 132–133). So "fallaciousness" need not refer exclusively to a situation where someone is charged with what we would call a fallacy (an infringement of a rule for critical discussion) and where a shift to a meta-dialogue takes place.

In fact, Finocchiaro uses the term "meta-argument" to refer to any argument about an argument (2007, 253–254). But argumentative discussions which contain such meta-arguments, need not move away from the original subject to that of discussing the rules of discussion. That is, they may still occur at, what we call, the ground level of dialogue. Finocchiaro's meta-levels of arguments are not the same as our meta-levels of discussion. Actually, we take it to be one of Finocchiaro's most valuable insights that serious argumentation at what we call the ground level of dialogue, such as the argumentation offered by Galileo, consists for a large part of arguments by which a discussant evaluates his interlocutor's arguments actively by considering specific counterconsiderations, that is of "meta-arguments."

[16] Here the main categories are formal, explanatory, presuppositional, internal (or, positive), semantical, and persuasive fallaciousness or disconnection, which each correspond to a particular way of arguing by the critic. We cannot here discuss these in detail, but these ways of arguing and their use by Galileo form the most intriguing part of Finocchiaro's paper (1987, 2005).

[17] This is a dialectification of the simpler norm that in arguments the conclusion should follow from the premises.

4.2 Freeman's Basic Dialectical Questions

In his *Dialectics and the Macrostructure of Arguments* (1991), James Freeman presents a dialectical theory of the structure of arguments. He starts from the notion of a basic dialectical situation, which is a dialogical situation where "one respondent develops an argument under the questioning of an interlocutor-challenger" (p. 18). Since arguments can be viewed as prompted by the questioning of a rational judge in such dialectical situations, the critical questions in a dialectical situation provide the clues for understanding the structure of arguments (p. 22). Freeman (pp. 38–39) distinguishes between three categories of basic dialectical questions that will be dealt with in turn.

(1) The category of *acceptability questions*. Of these Freeman presents two examples: "Why should I believe that premise?" and "How do you know that reason is true?" In our terms, these acceptability questions are *focused* on the propositional content of a premise of an elementary argument.[18] As to *force*, they are requests for further arguments to support this premise. An acceptability question can be seen as appealing in the first place to *norms* that require the discussants to defend their (sub)standpoints, if asked to do so.[19] But such a question also appeals to an optimality norm, since it is pointed out that the given argument is not yet convincing. Given that acceptability questions elicit from the proponent (further) argumentation to support the conclusion of the original argument, they can be seen as moves at the *ground level* of dialogue.

(2) The category of *relevance questions*. Freeman again presents two examples: "Why is that reason relevant to the claim?" and "How do you get there?," the latter of which we understand as a question asking to be shown the way leading from the given premises to the conclusion. In our terms, these questions *focus* on the (usually unexpressed) connection premise. As to *force*, both questions can in our view best be seen as requests to support the connection premise on the *ground level* of dialogue. The *norms* appealed to are those mentioned above, and moreover a norm that discussants are also responsible for their implicit contributions.[20]

(3) The most interesting category contains the so-called *ground adequacy questions*. Freeman makes a further distinction between three subcategories that require quite distinct analyses.

(3a) First, there are questions such as "Can you give me another reason?" In our terms, such questions *focus* on the connection premise by posing a *ground level* request (*force*) for a further reason that supplements the reason or the reasons already given so as to strengthen the antecedent of the connection premise. But then, on a meta-level, these questions can at the same time be used to convey the *strategic advice* to supplement the set of premises in order to arrive at an argument that does provide sufficient support, rather than to try and defend the current connection

[18] They are similar to requests for arguments focusing at the main standpoint instead of at a premise.

[19] Cf. Commandment 2 (the *obligation-to-defend rule*) and Commandment 6 (the *starting point rule*) in Van Eemeren and Grootendorst 2004,191.

[20] Cf. Commandment 5 (the *unexpressed-premise rule*) in Van Eemeren and Grootendorst 2004, 192.

premise. The *norms* appealed to here are rules for critical discussion,[21] a well as an optimality norm asking for optimal strength of premises to warrant an acceptable transition from premises to conclusion.

(3b) Second, there are questions such as: (i) "How sure do your reasons make you of your claim?," (ii) "Given your reasons, how confident should I be of your claim?," and (iii) "How sure are you that you'll get there?" According to Freeman, these questions are pertinent when the challenger (opponent) is in need of "logical clarification or qualification" (1991, 112). How are these questions to be interpreted from the stance of our four parameters? As stated before, we understand the connection premise of an elementary argument as expressing the commitment to accept the conclusion as soon as one has accepted the premises. These particular ground adequacy questions can be seen as aiming at getting the proponent to clarify his connection premise: how strict is the connection between premises and conclusions? By answering "My reasons make me certain of my claim" (p. 111), the proponent can make it clear that the connection between premises and conclusion is a deductive one. In that case, the proponent is claiming that the challenger is not to oppose his standpoint, while accepting the premises, upon pain of logical inconsistency. On the other hand, the connection can be made less strict by expressing that the challenger is not to oppose the standpoint, while accepting the premises, upon pain of assuming an implausible position (the implausibility may be of different degrees). In such a case the proponent makes it clear that the challenger can still win the discussion by showing that the circumstances are exceptional or at least excepting. One answer by the proponent that could convey such a message is "Given my reasons, my claim is more likely than not" (p. 111). Thus, ground adequacy questions of the second kind are *ground level* requests (*force*) for clarification that *focus* on the strength of the connection premise.[22] The *norms* appealed to require that each move should be sufficiently or even optimally clear.[23] From the perspective of the pragma-dialectical model for critical discussion, these questions aim at getting clear about whether Commandment 7 applies, which deals with argumentation that has been presented as logically valid, or whether Commandment 8 applies, which deals with argumentation that has been presented as being in accordance with an appropriate argument scheme.

(3c) Third, there are questions such as "Why do your premises make you so sure (in light of condition or counterevidence R)?," "Why do your reasons make you sure enough to accept your claim?," and "What might prevent you from getting there?" (p. 39). These questions must be understood as questions that "allude to rebuttals, even if they do not mention them explicitly" (p. 132). According to Freeman, such questions elicit at least two kinds of responses: acknowledgement and counterrebuttal.

[21] Cf. Commandments 7 (the *validity rule*) and 8 (the *argument scheme rule*) in Van Eemeren and Grootendorst 2004, 193–194.

[22] Even though the connection premise usually remains unexpressed and has to be reconstructed, requests to clarify the strength of the connection will count as *locutional* critical reactions.

[23] Cf. Commandment 10 (the general *language use rule*) in Van Eemeren and Grootendorst 2004, 195.

Let us use an example by Freeman to illustrate this (p. 162). Suppose a proponent has argued that Mrs. Wilson has disinherited her daughter (*C*) on the ground that her will leaves the daughter exactly $1.00 (*P*). A challenger may question this argument by bringing up the following rebuttal: "How do you know that Mrs. Wilson wasn't mentally incompetent when she made her will?" (*R* = Mrs. Wilson was mentally incompetent when she made her will) Freeman notes that "the challenger is not claiming that the rebutting condition [*R*] actually holds, but is simply raising the issue' as 'something worth worrying about'" (p. 161).

One way the proponent could acknowledge the rebuttal of his argument would be by changing this argument from "*P* so *C*" to "*P* so (*C* unless *R*)". In that way, the proponent would be giving up his original standpoint and argument. But, according to Freeman, one may also acknowledge a rebuttal by changing the "modality" of one's argument (the strength claimed for it) without giving up the argument itself: "Acknowledging rebuttals in the context of an argument, then, is to qualify the argument. It is to qualify the claim about how strongly, with what force, the premises support the conclusion" (p. 155). The rebuttal *R* at hand provides the excepting circumstances where the premises *P* are true but *C* is not. If such excepting circumstances are shown to hold, the argument can no longer be maintained. But in the meantime the proponent may hold to his argument in a conditional way, while acknowledging the rebuttal: "(*P* so *C*) unless it appears that *R*" Such an acknowledgement provides the challenger with precise information about the dialogical circumstances in which the proponent will retract his argument. In other words, if the question at hand brings the proponent to respond with "(*P* so *C*) unless it appears that *R*," the clarification he provides is that if the challenger is able to sustain *R*, the proponent will either give up his standpoint *C* or defend it by other arguments.

But, according to Freeman, "the challenger's rebuttal introducing question… does not ask the proponent simply to acknowledge excepting conditions but to give some evidence why those excepting conditions do not operate in this case, do not undercut the force of *this* argument" (p. 154). In other words, such questions aim at getting the proponent to supplement his case by offering "counterrebuttals" which counter the rebuttal, either in the sense of arguing for the denial of the (alleged) rebuttal (not-*R*) or in the sense of arguing against the potential of the (alleged) rebuttal to weaken the original argument (even if R, the argument P so C holds unmodified). Counterrebuttal, then, is a second way the proponent may respond.

In our terms, these rebuttal introducing questions *focus* again on the connection premise. Its *force* is that of a weak denial, supplemented with a consideration that explains why the challenger supposes that the proponent will not be in a position to provide a convincing case for his standpoint. The challenger in Freeman's example can be seen as a challenger who makes it clear that she does not expect to be convinced of the connection premise according to which a commitment to the proposition that Mrs. Wilson's will leaves her daughter exactly $1.00 leads to a commitment to the proposition that Mrs. Wilson has disinherited her daughter. Mentioning the possibility of Mrs. Wilson's mental incompetence provides the proponent with an explanation of why she is reluctant to accept that connection premise. Consequently, a challenger availing himself of this kind of question will be

giving *strategic advice* (on a *meta-level*): the proponent should either acknowledge the rebuttal and retract or clarify his argument as above, or he should present a counterrebuttal of either kind. As to *norms*, the questions appeal to rules of critical discussion[24] and to optimality norms according to which the proponent must attempt to construe a convincing case for his position. Secondarily, they appeal to norms requiring that each move, and consequently the move in which the connection premise is expressed, should be sufficiently or even optimally clear. For if the proponent is unable or unwilling to present a counterrebuttal or to retract the argument, he must provide the clarifications that go with the second kind of acknowledgement described above.

Freeman's basic dialectical questions provide ample material for the study of ways of criticism, especially criticism that provides strategic advice to the other party. We consider Freeman's theory especially intriguing because it exhibits various critical questions that are aimed at getting a proponent to clarify the logical connection between his conclusion and the reasons offered in support of them. This suggests that norms pertaining to the clarity of one's formulations play a central role in dialectical exchanges.

4.3 Pollock on Rebutting Defeaters and Undercutting Defeaters

We will provide another test of the worth of our four parameters by trying to characterize two notions employed by John Pollock in his *Cognitive Carpentry* (1995), which have proven useful in the area of argument and computation. These two notions, to wit "rebutting defeater" and "undercutting defeater," can be seen as specific kinds of critical reactions. In order to show that to be the case, by applying the four parameters, we first need to transform these notions from Pollock's epistemic perspective to our dialectical perspective.

Given his interest in "the construction of a person" who is capable of reasoning and reasoned action, Pollock chooses to focus on reasoning as the process by which beliefs are inferred from perceptual input and from previously held beliefs. An argument is considered as "a record of the state transitions involved in the agent's reasoning" (1995, 39). According to Pollock, most reasoning is defeasible insofar as it allows for rebutting defeaters or undercutting defeaters. Pollock defines a rebutting defeater thus: "If <Γ,p> is a prima facie [= non deductive] reason [= elementary argument with premises Γ and conclusion p], <Δ,q> is a rebutting defeater for <Γ,p> iff <Δ,q> is a reason and q = '$\neg p$,'" where "$\neg\varphi$" is the denial of φ (1995, 85). His definition of undercutting defeater is: "If <Γ,p> is a prima facie reason, <Δ,q> is an *undercutting defeater* for <Γ,p> iff <Δ,q> is a reason and q = '$\sim$(ΠΓ » p)'". In this definition, "$\sim$(ΠΓ » p)" is the denial ("$\sim\varphi$" symbolizes the negation of φ) of a conditional proposition ("φ » ψ" stands for: φ would not be true unless ψ were true) with the conjunction of the premises of Γ (symbolized as "ΠΓ") as its antecedent and p as its consequent, saying: "It is not the case that ΠΓ wouldn't be true unless p were true" (1995, 86). Suppose one

[24] See the rules mentioned in Note 21 and Commandment 9 (the *concluding rule*) in Van Eemeren and Grootendorst (2004, 195).

reasons from "The table looks red to me" to "The table is red." Then an undercutting defeater that defeats this argument reasons from, say, "A red light illuminates this table" to "It's not the case that the table wouldn't look red to me unless the table were red."

Given that these two kinds of defeaters are defined at an abstract level, we surmise that they can best be seen as propositional or linguistic entities that can be, but need not have been, employed by a person with the aim of defeating, or criticizing, an argument. A dialectical way of reading the definition of a rebutting defeater would be: "Where the proponent puts forward '*P* so *Q*' as an elementary argument, '*R* so *S*' is a *rebutting defeater* if and only if '*R* so *S*' is an elementary argument that can be put forward by the opponent, where *S* is the denial of *Q*". Similarly, the idea of an undercutting defeater allows of the following interpretation: "Where the proponent puts forward '*P* so *Q*' as an elementary argument, '*R* so *S*' is an *undercutting defeater* if and only if '*R* so *S*' is an elementary argument that can be put forward by the opponent, where S is the denial of the connection premise *'P leads to Q.'*" Note that in a dialectical context, the critic's use of a rebutting defeater against an arguer's argument "*P* so *Q*" normally conveys the message that the critic does not consider herself committed to both the proposition "*P*" and the proposition "*P leads to Q*," though she may not have any defeaters for these propositions at hand.

What would be a plausible way of characterizing these critical reactions in terms of the four parameters? Both kinds of defeaters can be seen as critical reactions having at least the *force* of assertives, and more specifically as argued strong denials by which a critic points out the flaw on the proponent's side of having used a proposition that happens to be false. In both kinds, the strong denial is accompanied by counterargumentation, which, as we discussed, also functions as *strategic advice* by giving the considerations to be defused by the proponent. Further, the giving of advice is a move at a *meta-level* of dialogue, while the strong denials and the arguments in favor of them are better seen as taking place at the ground level. So, the complexity of a defeater is partly a matter of force and partly a matter of level. What distinguishes the two defeaters is first of all that rebutting defeaters are *focused* on the propositional content of an (intermediate) conclusion or (sub-)standpoint put forward by the proponent, while undercutting defeaters are focused on the propositional content of a connection premise taken for granted by the proponent. As to *norms*, it may be observed that a rebutting defeater and an undercutting defeater appeal in different ways to norms for argumentative dialogue.

An undercutting defeater appeals to specific rules of critical discussion according to which the arguer must employ appropriate and correctly applied argument schemes or logical rules of inference.[25] Moreover, there may be an appeal to a corresponding optimality rule. A rebutting defeater is a less specific kind of critical reaction because, whereas the denial of the conclusion certainly implies a negative evaluation of the elementary argument presented in favor of the conclusion, it does so *without* specifying whether the connection premise or which one of the other premises is taken to be unacceptable. As we have seen, a critic's *strategic advice* to

[25] See Note 20.

a proponent is to defend his position in a way that meets the counterconsiderations of the critic by defusing (defeating) the defeater. But in the case of a rebutting defeater this advice is not further specified. There is, however, a general norm that rebutting defeaters can be seen to appeal to: "try to develop a conclusive defence," which we regard as a norm of optimality.[26] So, a rebutting defeater can be seen as an unspecific kind of critical reaction which, although focused on the standpoint of an elementary argument appeals to an optimality rule regulating the choice of the points of departure as well as the choice of argument schemes and of logical rules of inference.

What makes Pollock's account of critical reactions important is his formal approach. Starting from the definitions that we have examined, Pollock proceeds to develop a semantics for defeaters, that is, a set of rules by which it can be calculated whether a conclusion is justified or warranted (to a particular degree), given the existence of particular defeaters (1995, 20–124). We think it to be important that such semantic proposals are assessed from a dialectical point of view and hope to have shown that in order to do so the four parameters may be useful. But a full dialectical assessment would exceed the topic of this paper.

4.4 Snoeck Henkemans on Complex Argumentation in Critical Discussion

In her paper "Complex Argumentation in a Critical Discussion" (2003), Francisca Snoeck Henkemans discusses the critical reactions that can occur in a critical discussion (as well as the various ways of responding to these critical reactions) in order to explain how complex argumentation comes about and what functions the various kinds of elements of an argumentation fulfill.[27] Snoeck Henkemans points out that in the ideal model of a critical discussion, an opponent (antagonist) can criticize an argument by indicating the lack of acceptability of "the propositional content of the argumentation" (p. 408), or by pointing out that "the argument does not provide sufficient support for the standpoint" (p. 408), or by making it clear that "he regards the argument as irrelevant to the standpoint" (p. 409).

The *force* of a critical reaction *focusing* on a premise by which the opponent makes it clear that the premise is unacceptable can, when the reaction has been put forward in a questioning mode, be seen as that of a request for argumentation in defense of a premise of an elementary argument. But then, the opponent may also offer a counterargument to the effect that the premise is unacceptable. In that case the critical reaction can be seen as having the force of a strong denial and as being accompanied by argumentation in favor of that denial. Snoeck Henkemans makes it clear that these critical reactions can give rise to a subordinative (also called "serial") argumentation on the part of the arguer (protagonist, proponent). So, in both cases, an implicit *strategic advice* for the arguer will be to provide such subordinative argumentation and, in the case of a counterargument, to defuse the counterargument. Further (in both cases), the critical reaction takes place on the

[26] This norm is clearly implicit in the Rules 7, 8, and 9 of the 15-rules-model of critical discussion (Van Eemeren and Grootendorst 2004, 147–151).

[27] See also Snoeck Henkemans 1992.

ground level of dialogue, except in so far as it provides strategic advice, which forms a move at a meta-level of dialogue. As to *norms*, the case of a request corresponds to that of Freeman's acceptability questions: the opponent appeals to both rules for critical discussion[28] and optimality norms. In the case of counterarguments, there is, we would say, an appeal to rules for critical discussion according to which a arguer should in circumstances acknowledge his defeat[29] as well as to a norm of optimality telling the arguer to make a serious effort to succeed in the discussion.

Snoeck Henkemans distinguishes between two ways of indicating that, as far as the opponent is concerned, the adduced reasons do not suffice to yield the conclusion. The opponent may either call their sufficiency into question by asking for more reasons or by raising an objection against the argument's sufficiency. In both cases, the critical reaction can be characterized as being *focused* on the connection premise and, in the first case, as having the *force* of a request. In the latter case, the opponent "mentions a specific objection that can be seen as an argument in favor of his claim that the amount of support is insufficient" (p. 409). In our terms, this critical reaction can be seen as having the assertive force of a strong denial of the connection premise and as being accompanied by an argument in favor of that denial. Snoeck Henkemans makes it clear that both situations prompt the arguer to offer a coordinative argumentation. In our view, the arguer may also try to argue that the argumentation given is in fact sufficient, i.e., he may offer subordinative argumentation supporting the original connection premise. But, to put these matters in our terms, the implicit *strategic advice* for the arguer is first and foremost to try and provide coordinative argumentation to strengthen the argumentation originally given. In the case of a request, the advice is to provide cumulative argumentation by adding new evidence. In case the critic has mentioned an objection, the advice is to provide complementary argumentation by adding a reason that defuses the objection (Snoeck Henkemans 1992, 96–97). Again, the critical reaction takes place on the *ground level* of dialogue, except for the strategic advice that is being offered. As to *norms*, the case of a request corresponds to that of Freeman's first kind of ground adequacy questions: the opponent appeals both to rules for critical discussion.[30] and optimality norms. The case of an objection corresponds to Freeman's third kind of ground adequacy question and the appeal is again both to rules for critical discussion[31] and to optimality norms.

Finally, the opponent may indicate that "the argument is irrelevant to the standpoint" (Snoeck Henkemans 2003, 409). Such a critical reaction *focuses*, again, on the connection premise. Its *force* can be merely that of a request for further argumentation to support the relevance. However, the opponent may also offer a counterargument against the relevance of a premise or premise set. In that case, the critical reaction has the force of a strong denial and is accompanied by argumentation. Snoeck Henkemans makes it clear that charges of irrelevance

[28] See Note 18.

[29] Cf. Commandment 9 (the *concluding rule*) in Van Eemeren and Grootendorst 2004, 195.

[30] See Note 21.

[31] See Notes 21 and 24.

occasion the arguer to offer a new argument in favor of the connection premise. The result is subordinative argumentation. In our terms, the implicit *strategic advice* for the arguer is to provide such subordinative argumentation. In the special case where the opponent has supported the objection of irrelevance by argument, this argument must be defused by an argument of the arguer. In so far as the critical reaction forms a request or a denial or an argument, it contributes to the *ground level* of dialogue. In so far as it provides strategic advice, its message contributes to a meta-level of dialogue. As to *norms*, the case of a request corresponds to Freeman's relevance questions: again the opponent appeals both to rules for critical discussion[32] and optimality norms; in the case of a counterargument the norms include a rule about acknowledgement of defeat.[33] A difference between attacking sufficiency and attacking relevance as described by Snoeck Henkemans (pp. 408–409) is reflected in the *strategic advices* they offer. In the case of attacking the insufficiency, the strategic advice is (either to give up or) to try and repair the elementary argument by adding one or more premises, such that the result is an elementary argument that has an acceptable connection premise. In the case of attacking irrelevance, the strategic advice is (either to give up or) to try and support the connection premise by argument.

Applying the ideas of our paper to a reading of Snoeck Henkemans's article seems to run fairly smooth. It also leads us to a conclusion (referred to at the end of Sect. 2.3) with respect to the distinction between the evaluation criteria of acceptability, sufficiency and relevance that have been so influential in Informal Logic: The distinction between acceptability on the one hand and relevance and sufficiency on the other is one of focus, while the distinction between relevance and sufficiency is not one of focus but one of strategic advice.

5 Conclusion

As has become evident from our discussion of the four parameters and of the ancient and contemporary ways of criticism, there exists an enormous variety of critical reactions. These must be taken into account within argumentation studies aimed at the development of norms for argumentation and of practical guidelines for those who wish to engage in argumentative activities, displaying rationality as well as persuasiveness. In Table 1 below we provide a survey of the critical reactions on the basis of the four parameters.

We thought it to be important to apply and illustrate the notions in the present approach, comparing them with notions of critical reactions as they exist within such areas as ancient dialectic, informal logic, formal dialectic, pragma-dialectic, and computational approaches, so as to facilitate the development of a clear and useful inventory of critical reactions. We took some steps in that direction in Sects. 3 and 4 of this paper.

[32] See the norms in Note 19 and 20.

[33] Cf. Commandment 9 (the *concluding rule*) in Van Eemeren and Grootendorst 2004, 195.

Table 1 A survey of critical reactions

Parameters	*Main types*	*Some subtypes / Examples*
Focus *Aspects*: Propositional Locutional Personal Situational	On elementary arguments	On the standpoint
		On a reason
		On the connection premise
	On complex arguments	Charges of equivocation, begging the question, inconsistency, and *non causa*.
	On a move that does not present (a part of) an argument	Criticizing challenges, requests, and criticisms
	On further combinations of moves	Charges of inconsistency or of unreasonable behavior
Norm *Ways of appealing to norms:* Merely appealing Emphasizing	Rules for critical discussion	Freedom rule Burden of proof rule
	Norms of optimality	Use the stronger argument. Choose the clearest formulation. Avoid digressions.
	Institutional norms	Adapt to audience. Provide only legally obtained evidence.
Force	Directives	Requests: Requests for arguments (challenges) Requests for clarifications
		Strategic advice: To supply additional reasons, meet objections, or show relevance
	Assertives	Pointing out flaws: Weak denials Strong denials (counterstandpoints) Counterexamples Pointing out ambiguities, inadmissibility of evidence, or that there is no time left
Level	Ground level	Requests for further argumentation or clarification Strong denials Counterarguments
	Meta-levels	Calling into doubt the legitimacy or the appropriateness of moves Weak denials Strategic advice Personal attacks

One thing that has become clear to us, at the present stage of research, is that criticisms often constitute subtle argumentative instruments that do not only carry negative messages for the interlocutor, but are often helpful in that they provide various kinds of strategic advice.

Acknowledgments For inspiration, we would like to thank Doug Walton. For helpful comments, we are indebted to the members of various audiences and to the referees and editors of this paper and of earlier versions of parts of this paper (Krabbe and Van Laar 2010, 2011).

References

Aristotle. 1965. On sophistical refutations. In *On sophistical refutations, on coming-to-be and passing-away, on the cosmos*, 10–155. London: W. Heinemann. First ed. 1955. *The Loeb Classical Library 400/442* (trans: Forster, Edward S.).

Aristotle. 1976. Topica. In *Posterior analytics, Topica*, ed. Aristotle, 263–739. London: W. Heinemann. First ed. 1960. *The Loeb Classical Library 391* (trans: Forster, Edward S.).

Brunschwig, Jacques. 2007. *Aristote: Topiques: Tome II: Livres V–VIII*. Paris: Les Belles Lettres.

Finocchiaro, Maurice A. (1980). *Galileo and the art of reasoning: Rhetorical foundations of logic and scientific method* (Boston Studies in the Philosophy of Science 61). Dordrecht: Reidel.

Finocchiaro, Maurice A. (1987). Six types of fallaciousness: Toward a realistic theory of logical criticism. *Argumentation 1,* 263–282. (Reprinted in Finocchiaro, Maurice A. 2005. *Arguments about arguments: Systematic, critical and historical essays in logical theory*, 128–147. Cambridge: Cambridge University Press.).

Finocchiaro, Maurice A. 1997. *Galileo on the world systems: A new abridged translation and guide*. Berkeley, CA: University of California Press.

Finocchiaro, Maurice A. 2007. Arguments, meta-arguments, and metadialogues: A reconstruction of Krabbe, Govier, and Woods. *Argumentation* 21: 253–268.

Freeman, James B. 1991. *Dialectics and the macrostructure of arguments: A theory of argument structure*. Berlin: Foris.

Garssen, Bart 2001. Argument schemes. In *Crucial concepts in argumentation theory*, ed. Frans H. van Eemeren, 81–99. Amsterdam: Amsterdam University Press.

Govier, Trudy. 1999. *The philosophy of argument*. In ed. John Hoaglund, with a preface by J. Anthony Blair. Newport News, VA: Vale Press.

Hitchcock, David. 2006. Good reasoning on the Toulmin model. In *Arguing on the Toulmin model: New essays in argument analysis*, ed. David Hitchcock, and Bart Verheij, 203–218. Dordrecht: Springer.

Houtlosser, Peter. 2001. Points of View. In *Crucial concepts in argumentation theory*, ed. Frans H. van Eemeren, 27–50. Amsterdam: Amsterdam University Press.

Johnson, Ralph H. 2000. *Manifest rationality: A pragmatic theory of argument*. Mahwah, NJ: Lawrence Erlbaum.

Johnson, Ralph H., and Anthony J. Blair. 1983. *Logical self-defense*, 2nd ed. Toronto: McGraw-Hill Ryerson.

Krabbe, Erik C.W. 2001. Strategies in dialectic and rhetoric. In *Argumentation and its applications* (CD-ROM), Proceedings from the Conference of the Ontario Society for the Study of Argumentation, May 17–19, 2001, ed. Hans V. Hansen, Christopher W. Tindale, J. Anthony Blair, Ralph H. Johnson & Robert C. Pinto, University of Windsor, Windsor, ON.

Krabbe, Erik C.W. 2002. Profiles of dialogue as a dialectical tool. In *Advances in pragma-dialectics*, ed. Frans H. van Eemeren, 153–167. Amsterdam: Sic Sat.

Krabbe, Erik C.W. 2003. Metadialogues. In *Anyone who has a view: Theoretical contributions to the study of argumentation*, ed. Frans H. van Eemeren, J.Anthony Blair, Charles A. Willard, and A.Francisca Snoeck Henkemans, 83–90. Dordrecht: Kluwer.

Krabbe, Erik C.W. (2007). Nothing but objections! In *Reason reclaimed: Essays in honor of J. Anthony Blair & Ralph H. Johnson*, ed. Hans V. Hansen & Robert C. Pinto, 51–63, references pp. 283–299. Newport News, VA: Vale Press.

Krabbe, Erik C.W., and Jan Albert van Laar. 2010. About the ways of criticism. In *CMNA X: The 10th workshop on computational models of natural argument*, ed. Chris Reed, Floriana Grasso, and Nancy Green, 20–28. Lisbon: ECAI.

Krabbe, Erik C.W. & Jan Albert van Laar. 2011. The ways of criticism: Four parameters. To be published in the ISSA-conference (2010) proceedings.

Parsons, Simon, Michael Wooldridge, and Leila Amgoud. 2003. Properties and complexity of some formal inter-agent dialogues. *Journal of Logic and Computation* 13: 347–376.

Plato. 1997. In *Complete works*, ed. John M. Cooper & Douglas S. Hutchinson, Indianapolis, IN: Hackett.
Pollock, John. 1995. *Cognitive carpentry: A blueprint for how to build a person*. Cambridge, MA: MIT Press.
Prakken, Henry. 2005. Coherence and flexibility in dialogue games for argumentation. *Journal of Logic and Computation* 15: 1009–1040.
Rescher, Nicholas. 1977. *Dialectics: A controversy-oriented approach to the theory of knowledge*. Albany: State University of New York Press.
Smith, Robin. 1997. *Aristotle: Topics: Books I and VIII with excerpts from related texts*. Oxford: Clarendon Press.
Snoeck Henkemans, A. Francisca (1992). *Analysing complex argumentation: The reconstruction of multiple and coordinatively compound argumentation in a critical discussion*. Doctoral dissertation, University of Amsterdam. Amsterdam: Sic Sat.
Snoeck Henkemans, A. Francisca. 2003. Complex argumentation in a critical discussion. *Argumentation* 17: 405–419.
van Eemeren, Frans H. 2010. *Strategic maneuvering in argumentative discourse: Extending the pragma-dialectical theory of argumentation*. Amsterdam: John Benjamins.
van Eemeren, Frans H., and Rob Grootendorst. 1982. The speech acts of arguing and convincing in externalized discussions. *Journal of Pragmatics* 6: 1–24.
van Eemeren, Frans H., and Rob Grootendorst. 1984. *Speech acts in argumentative discussions: A theoretical model for the analysis of discussions directed towards solving conflicts of opinion*. Dordrecht and Cinnaminson, NJ: Foris.
van Eemeren, Frans H., and Rob Grootendorst. 1992. *Argumentation, communication, and fallacies: A pragma-dialectical perspective*. Hillsdale, NJ: Lawrence Erlbaum.
van Eemeren, Frans H., and Rob Grootendorst. 2004. *A systematic theory of argumentation*. Cambridge: Cambridge University Press.
van Eemeren, Frans H., and Peter Houtlosser. 2002. Strategic manoeuvring in argumentative discourse: A delicate balance. In *Dialectic and rhetoric: The warp and woof of argumentation analysis*, ed. Frans H. van Eemeren, and Peter Houtlosser, 131–159. Dordrecht: Kluwer.
van Eemeren, Frans H., and Peter Houtlosser. 2005. Theoretical construction and argumentative reality: An analytical model of critical discussion and conventionalised types of argumentative activity. In *The uses of argument: Proceedings of a conference at McMaster University*, ed. David Hitchcock, 75–84. Hamilton: Ontario Society for the Study of Argumentation.
van Eemeren, Frans H., Rob Grootendorst, Sally Jackson, and Scott Jacobs. 1993. *Reconstructing argumentative discourse*. Tuscaloosa, AL: The University of Alabama Press.
van Laar, Jan Albert. 2010. Commentary on: D. Walton's "Objections, rebuttals and refutations." In *Argument cultures (CD-ROM)*, Proceedings from the 8th Conference of the Ontario Society for the Study of Argumentation, June 3–6, 2009, University of Windsor, ed. J. Ritola. Windsor, ON: OSSA.
van Laar, Jan Albert & Erik C.W. Krabbe. 2012. The burden of criticism. To be published in the OSSA proceedings of 2011.
Walton Douglas, N. 2010. Objections, rebuttals and refutations. In *Argument cultures (CD-ROM)*, Proceedings from the 8th Conference of the Ontario Society for the Study of Argumentation, June 3–6, 2009, University of Windsor, ed Juho Ritola. Windsor, ON: OSSA.
Walton, Douglas N., and Erik C.W. Krabbe. 1995. *Commitment in dialogue: Basic concepts of interpersonal reasoning*. Albany, NY: State University of New York Press.
Wells, Simon & Chris, Reed. 2005. Formal dialectic specification. In *Argumentation in multi-agent systems*, Proceedings of ArgMAS 2004, ed Iyad Rahwan, Pavlos Moraitis, & Chris Reed, 31–43. New York: Springer.
Wlodarczyk, Marta. 2000. Aristotelian dialectic and the discovery of truth. *Oxford studies in ancient philosophy* 18: 153–210.