

Developments in Argumentation Theory

*Frans H. van Eemeren and Rob Grootendorst,
University of Amsterdam*

Abstract

In this paper, a survey is provided of the state of the art in argumentation theory. Some of the most significant approaches of the past two decades are discussed: Informal Logic, the formal theory of fallacies, formal dialectics, pragma-dialectics, Radical Argumentativism, and the modern revival of rhetoric. The survey is based not only on books, but also on papers published in professional journals or included in conference proceedings.

1. Introduction

Argumentation is a speech act complex aimed at resolving a difference of opinion. According to a prominent handbook definition, it is a verbal and social activity of reason carried out by a speaker or writer concerned with increasing (or decreasing) the acceptability of a controversial standpoint for a listener or reader; the constellation of propositions brought to bear in this endeavour is intended to justify (or refute) the standpoint before a rational judge.¹ *Argumentation theory* is the name given to the (systematic results of the) study of this discourse phenomenon. Argumentation theory studies the production, analysis and evaluation of argumentation with a view of developing adequate criteria for determining the validity of the point of departure and presentational layout of argumentative discourse.

The constellation of propositions advanced in argumentation is often referred to by the term *argument*, particularly by logicians and philosophers. This may lead to confusion because (in English) the word 'argument' has various meanings. Apart from (a) a reason and (b) a logical inference of a conclusion from one or more premisses, 'argument' can also denote (c) a discussion and (d) a quarrel. In order to avoid ambiguity, O'Keefe (1977) distinguishes between arguments in sense (a), (c) and (d), but for the purposes of argumentation theory it is the obscuring of (a) and (b) that causes most confusion. It blurs the distinction between the logical and the pragmatic aspects of argumentative discourse.²

¹ See van Eemeren et al. (1996: 5).

² This distinction plays a vital part in the reconstruction of unexpressed premisses, the classification of argumentation schemes and the analysis of argumentation structures. See van Eemeren and Grootendorst (1992: 60-62).

Argumentation theory has a descriptive as well as a normative dimension. It is descriptive because it investigates the practice of argumentative discourse empirically; it is normative because it reflects critically on the reasonableness of that discourse. Normative theorists, such as those inspired by logic and philosophy, concentrate on the criteria that need to be satisfied in reasonable argumentation. Descriptive theorists, who often have a background in discourse analysis or social psychology, examine how argumentation is used to convince or persuade the interlocutors or readers. It is the divergence of normative and descriptive approaches to argumentative discourse--and the ensuing controversies³--that creates another source of confusion in argumentation theory. For the purposes of argumentation theory, both descriptive and normative insights are indispensable. A fully-fledged argumentation theory therefore requires a comprehensive research programme that integrates the descriptive dimension and the normative dimension.⁴

This chapter provides a survey of the state of the art in argumentation theory by describing some of the major developments that have taken place in the past two decades.⁵ It is based not only on books, but also on papers published in professional journals or included in conference proceedings. Starting in the late seventies argumentation has become a subject of interest to scholars in a growing number of disciplines, and the number of publications on argumentation has risen accordingly. There has also been a considerable increase of professional journals, argumentation conferences and organizations devoted to the study of argumentation.

The most important argumentation journals published in English are the *Journal of the American Forensic Association* (since 1954), continued as *Argumentation and Advocacy* (since 1988), *Informal Logic* (since 1978), and *Argumentation* (since 1987). Argumentation conferences are generally held under the auspices of the International Society for the Study of Argumentation (*ISSA*), the Association for Informal Logic and Critical Thinking (*AILACT*), the Ontario Society for the Study of Argumentation (*OSSA*), and the American Forensic Association (*AFA*), which is part of the Speech Communication Association (*SCA*). Conferences are also often organized by specific universities or included in broader conferences on philosophy, linguistics, speech communication, law, or some other discipline.

³ Extreme normativists frequently combine their position with a rejection of a relativist stand, whereas extreme descriptivists defend it. Among the former are Siegel (1982) and Biro and Siegel (1992), among the latter is Willard (1989).

⁴ For a research programme that encompasses both the descriptive and the normative dimension of argumentation theory, see van Eemeren and Grootendorst (1992) and van Eemeren et al. (1993).

⁵ For a more comprehensive survey, see van Eemeren et al. (1996).

2. Toulmin's model and Perelman's new rhetoric

The study of argumentation was for a long time dominated by the--still influential--contributions of Toulmin and Perelman. Their approaches are in both cases characterized by the attempt to provide an alternative to formal logic that is more suitable for dealing with everyday argumentation in ordinary language. Toulmin's *The uses of argument* (1958) presents a model of the various elements constituting an argumentation ('claim', 'data', 'warrant', etc.).⁶ Perelman and Olbrechts-Tyteca's *La nouvelle rhétorique* (1958/1969) provides an inventory of effective argumentation techniques ('quasi-logical argumentation', 'argumentation based on the structure of reality', 'argumentation establishing the structure of reality', etc.).⁷

In Toulmin's model as well as in Perelman's new rhetoric the rational procedures of judicial reasoning are taken as the starting point. In neither case, however, the aim the authors set out to tackle has been truly achieved. This may, at least partly, be due to Toulmin's and Perelman's limited views of logic. They conveniently identify logic with traditional syllogistic logic. Modern developments are largely ignored, or could--as in the case of dialogue logic--not yet be taken into account. Another inadequacy is that no justice is done to the fact that argumentation is primarily a discourse phenomenon, which is always embedded in a specific contextual and social environment. In order to study argumentation adequately, it must be viewed as a form of linguistic action that is to be approached pragmatically. The neglect of insights from both (dialogue) logic and (pragma-)linguistics has been an impediment to the development of a sound theory of argumentation. It may explain why neither Toulmin's model nor Perelman's new rhetoric offers a satisfactory alternative to formal logic, however inspiring these contributions to the study of argumentation may be.

⁶ For an elaborate discussion of Toulmin's model, see van Eemeren et al. (1996: 129-160). See also Hample (1977) and Healy (1987). Less critical are Burlinson (1979) and Reinard (1984).

⁷ For an elaborate discussion of Perelman and Olbrechts-Tyteca's new rhetoric, see van Eemeren et al. (1996: 93-128). See also Ray (1978), *JFAA's* special issue edited by Dearin (1985), Golden and Pilotta (ed., 1986), and Corgan (1987).

3. Informal Logic

Informal Logic is a movement, originating in North America in the early seventies, which grew out of dissatisfaction with the usual treatment of argumentation in introductory logic textbooks. It is inspired by the works of Toulmin and Perelman and by the ideas of some other dissenting philosophers. Since 1978, the voice of this movement has been the journal *Informal Logic*, edited by Blair and Johnson.⁸

Although the name suggests otherwise, Informal Logic is not a new kind of logic. It is rather a normative approach to argumentation in everyday language that is broader than formal logic. According to the informal logicians, the validity and cogency of argumentation is not identical to formal validity in deductive logic. Blair and Johnson (1987a) argue that the premisses for a conclusion must satisfy three criteria: (1) 'relevance', (2) 'sufficiency', and (3) 'acceptability'.⁹ With relevance, the question is whether the contents of the premisses and the conclusion are adequately related; with sufficiency, whether the premisses provide enough evidence for the conclusion; with acceptability, whether the premisses are true, probable or otherwise reliable.

The informal logicians' objective is to develop norms, criteria and procedures for the interpretation, evaluation and construction of argumentation. The problems for which solutions are sought are largely the same as in other approaches: how to analyze argumentation structures, how to classify argumentation schemes, how to assess argumentation, how to identify fallacies, how to conduct a discussion, et cetera. In its present state, Informal Logic is a comprehensive research programme rather than an elaborated theory of argumentation.

There is a striking overlap between the aims and scope of Informal Logic and those of pragma-dialectics (see section 6). An important difference is that Informal Logic concentrates primarily on the relation between premisses and conclusions, while pragma-dialectics pretends to cover all aspects and stages of a critical discussion. Another difference is that Informal Logic studies various uses of reasoning whereas pragma-dialectics focuses on reasoning that is directed at resolving differences of opinion. A third difference stems from the distinct theoretical backgrounds: in analysing argumentation, Informal Logic is geared to disclosing the logical qualities of argumentative discourse, and pragma-dialectics to examining the pragma-linguistic properties that can be taken into account in its reconstruction.

⁸ For the object and research programme of Informal Logic, see Blair and Johnson (1987b). A brief historical survey is provided in Johnson and Blair (1980). See also van Eemeren et al. (1996: 163-188).

⁹ These criteria were first discussed in Johnson and Blair (1977). Although the labels are not always the same, the three criteria have been adopted by Govier (1985), Damer (1987), Freeman (1988), and others.

4. Formal theory of fallacies

A substantial contribution to the study of argumentation, concentrating on the fallacies, has been made by the Canadian logicians Woods and Walton (1989). Their formal approach is exhibited in a series of jointly and independently authored articles and books. Many of their co-authored papers are collected in *Fallacies: Selected Papers, 1972–1982* (1989). The basic principles of their approach of the fallacies are explained in their textbook *Argument: The Logic of the Fallacies* (1982).¹⁰

The Woods-Walton approach to the fallacies is *pluralistic*: in their opinion, it makes no sense to suppose that all fallacies must be given the same kind of analysis. Their general methodological view is that fallacies are usefully analyzed with the help of the structures and the theoretical vocabulary of various logical systems, including systems of dialectical logic. This does not mean that they take a fixed position on whether fallacies are inherently logical. In Woods and Walton's view, this will vary depending on the fallacy in question. It is their claim that at least a great many fallacies can best be analysed in a way that can in some sense be qualified as *formal*.

In their analysis of fallacies, Woods and Walton draw upon Hamblin's dialectical concepts of 'commitment set' and 'retraction' as methodological tools. Thus their analysis of the fallacies is formally oriented, but also dialectical. They tend to organize the many fallacies they have recognized in their writings into three grades of 'formality'. First, there are those fallacies (such as the fallacy of four terms) which are formal in the strict sense. At the next grade of formality come those fallacies (such as the fallacies of ambiguity) that are not formal in the strict sense, but whose commission is at least partly made explicable by reference to logical forms. Much more prominently realized in Woods and Walton's work is a third grade of formality that applies to theories whose key concepts are analyzable using the vocabulary and concepts of a system of logic or some other formal system.

Woods and Walton (1982) emphasize the theoretical importance of characterizing fallacies as features of arguments in actual use. A pragmatic feature of their approach is that it admits many different contexts or frameworks in which argumentation could be used. In theory, all these contexts or frameworks should be definable under the general rubric of a structure of dialogue where the participants, moves, locations, commitments, and other factors that define the dialogue exchange, are clearly and precisely defined.

¹⁰ See also Walton (1982). For a more elaborate discussion of Woods and Walton's theoretical position, see van Eemeren et al. (1996: 213-245).

5. Formal dialectics

Formal logic was given an important dialectical turn by Barth and Krabbe in *From axiom to dialogue* (1982). Building upon Lorenzen's dialogue logic, they described a formal procedure to check whether a given thesis can be logically maintained in light of certain assumptions. This dialectical interpretation of logic is known as 'formal dialectics'.¹¹

In formal dialectics reasoning is viewed as a dialogue between a proponent and an opponent of a certain thesis. Together the proponent and the opponent attempt to find out whether this thesis can be successfully defended against critical attacks. In his defence, the proponent of the thesis can make use of the opponent's 'concessions': statements that the opponent is prepared to take responsibility for. The proponent must parry any attack on one of his own statements. In this endeavour, he can either give a direct defence or undertake a counterattack on a concession by the opponent.

The opponent is obliged to defend any concession that comes under attack. If this would result in him being unable to do anything other than assert something that he had attacked earlier in the dialogue, this would benefit the proponent. Therefore, the proponent attempts to manoeuvre the opponent into this position by cleverly using the opponent's concessions. If he is able to do so, according to the rules of the game, the proponent has successfully defended his position, thanks to the opponent's concessions, hence *ex concessis*.

The discussion envisioned in formal dialectics differs fundamentally from ordinary argumentative practice. The assumed starting-point can only occur after a party in a discussion has already presented his argumentation in defence of a standpoint. It arises if he and the other party then decide to discover whether this standpoint can be maintained in the light of the argumentation. The parties then initiate a procedure to check whether the standpoint can be logically concluded from the premisses that have been presented in the argumentation. If the other party is indeed prepared to take on the role of opponent, he needs to add the proponent's argumentation as a set of concessions to his own commitments.

6. Pragma-dialectics

There are a number of direct links between formal dialectics and 'pragma-dialectics', the theory of argumentation developed by van Eemeren and Grootendorst (1984, 1992). As indicated by the joint use of the term *dialectic*, the general objective is in both cases the same. The theoretical orientation of pragma-dialectics, however, is different from that of formal dialectics. This difference is clearly

¹¹ For an explanation of Lorenzen's dialogue logic and Barth and Krabbe's formal dialectics, see van Eemeren et al. (1996: 246-273).

expressed in the choice of the prefix *pragma(tic)* rather than *formal*. Pragma-dialectics is primarily a theory of argumentative discourse, not a theory of logic.¹²

Unlike the formal dialectical rules for generating rational arguments, the pragma-dialectical rules for resolving a difference of opinion are envisaged as representing necessary conditions for carrying out a critical discussion in argumentative discourse. In *Speech acts in argumentative discussions* (1984), van Eemeren and Grootendorst introduced a code of conduct for resolving differences of opinion in a reasonable way. In *Argumentation, communication, and fallacies*, they summarized this discussion procedure in ten basic rules: the “Ten Commandments” of a critical discussion (1992: 208-209).¹³

In a critical discussion, one language user (the ‘protagonist’) expresses a standpoint and another language user (the ‘antagonist’) expresses doubt with respect to this standpoint or advances a contradictory standpoint. The protagonist defends his standpoint by putting forward argumentation, and if confronted with critical reactions, further argumentation to support his prior argumentation. The difference of opinion is resolved when either the antagonist is convinced by the protagonist’s argumentation and accepts the defended standpoint or the protagonist withdraws his standpoint as a result of the antagonist’s critical reactions.

Analytically, four stages are distinguished in the conduct of a critical discussion: defining the difference of opinion (‘confrontation’ stage), establishing the starting-point of the discussion (‘opening’ stage), exchanging arguments and critical reactions in order to resolve the difference (‘argumentation’ stage), and determining the result of the discussion (‘concluding’ stage).¹⁴ At every stage of a discourse aimed at bringing about a critical discussion, specific obstacles may arise that can impede the resolution of the difference of opinion. The pragma-dialectical rules are designed to prevent such obstacles from arising; they provide a definition of the general principles of constructive argumentative discourse. Supposedly, obeying all the rules obviates the obstacles which are traditionally known as ‘fallacies’.¹⁵

¹² As for its dialectical starting-point, pragma-dialectics has been inspired by insights from Crawshaw-Williams (1957), Popper (1972, 1974) and Barth and Krabbe (1982); its pragmatic theoretical orientation is based on insights from Austin (1962), Searle (1969, 1979) and Grice (1975). For a more elaborate discussion of pragma-dialectics, see van Eemeren et al. (1996: 274-311).

¹³ A precondition for resolving a difference by means of a critical discussion is that the appropriate ‘higher order’ conditions have already been met. See van Eemeren and Grootendorst 1988: 287-288) and van Eemeren et al. (1993: 30-34).

¹⁴ See van Eemeren and Grootendorst (1992: 35).

¹⁵ This is why the rules are purported to be ‘problem-valid’; see Barth and Krabbe (1982: 21-22). For a discussion of the fallacies as violations of pragma-dialectical discussion rules, see van Eemeren and Grootendorst (1992: 102-207).

A crucial difference between the pragma-dialectical rules and the rules of formal dialectics is that the former are linked to ordinary discussions in everyday language. Their scope extends over all aspects of a critical discussion, inclusive of the logical inference relations between premisses and conclusions. The rules cover all speech acts performed in all stages of a discourse aimed at resolving a difference of opinion. In *Reconstructing argumentative discourse*, van Eemeren, Grootendorst, Jackson and Jacobs (1993) have shown how the model of a critical discussion can be applied to the analysis of argumentative discourse as it occurs in various kinds of practices.¹⁶

7. Radical Argumentativism

In the seventies, the French linguists Ducrot and Anscombe started to develop a linguistically-oriented approach to argumentative discourse. They label this approach “Radical Argumentativism”, because in their view every form of language use has an argumentative aspect (Anscombe and Ducrot 1986). The outlines of Radical Argumentativism have been presented in *Les échelles argumentatives* by Ducrot (1980), *L’argumentation dans la langue* by Anscombe and Ducrot (1983), and *Le dire et le dit* by Ducrot (1984).¹⁷

Ducrot and Anscombe’s basic idea is that every piece of discourse contains an explicit or implicit dialogue. They describe how ‘argumentative connectors’ (such as *but*, *even*, and *at least*) and ‘argumentative operators’ (such as *only*, *no less than*, and *very*) give specific ‘argumentative power’ and ‘argumentative direction’ to the discourse by activating a certain *topos*.¹⁸ According to Ducrot and Anscombe’s theory of ‘many-voicedness’ or ‘polyphony’, argumentative connectors such as *but* can be responsible for a conflicting argumentative direction since they create a silent second voice which reveals the structural presence of two incompatible conclusions.

In ‘That book is fantastic, but it is hard to understand’, for example, the listener may conclude on the basis of the first part of the sentence that it would be wise to read the book; on the basis of the second part, he might conclude that this is not so wise. The opposing conclusions suggest different ‘argumentative principles’ or

¹⁶ In this endeavour, van Eemeren et al. explain which transformations need to be performed in order to deal with digressions and repetitions, to do justice to implicit and indirect speech acts, et cetera. Jackson and Jacobs have also made an important contribution to the study of conversational argument in its own right. Their publications include, for example, Jackson and Jacobs (1980, 1989).

¹⁷ Only lately Ducrot and Anscombe’s theory has become somewhat better known outside the French-speaking world, due to articles in English such as Lundquist (1987), Verbiest (1991) and Nølke (1992). For a more elaborate discussion of Radical Argumentativism, see van Eemeren et al. (1996: 312-321).

¹⁸ For a brief explanation of the meaning of the term *topos* in classical dialectic and rhetoric, see van Eemeren et al. (1996: 37-50).

topoi: ‘The more fantastic a book is, the more reason there is to read it’ and ‘The less understandable a book is, the more reason there is not to read it’. The use of argumentative operators can have the same effect. Compare the sentence ‘The ring costs only one hundred dollars’ with the sentence ‘The ring costs no less than one hundred dollars’. In a certain context, the first sentence can point to the conclusion ‘Buy the ring’, the second to the conclusion ‘Do not buy the ring’. In the first sentence, the argumentative operator *only* activates the *topos* ‘The cheaper the ring is, the more reason there is to buy it’; in the second sentence, the argumentative operator *no less than* activates the *topos* ‘The more expensive a ring is, the more reason there is not to buy it’.

In the field of argumentation theory, Ducrot and Anscombe’s view that ‘argumentativity’ is a feature of all language use is not generally accepted: argumentation is usually seen as a special form of discourse with a specific communicative and interactional function. Another distinctive feature of Ducrot and Anscombe’s Radical Argumentativity is that it is not aimed at developing norms and criteria for the evaluation of argumentation. Its aim is exclusively descriptive: providing a description of the syntactic and semantic elements that play a role in the argumentative interpretation of sentences.¹⁹

8. Modern revival of rhetoric

Over the past few years, a powerful reevaluation of classical rhetoric has been in progress. It has become accepted in the professional literature that the a-rational--sometimes anti-rational--image of rhetoric must be revised. More or less as a consequence, the sharp opposition to dialectics should be moderated too. A number of authors claim that rhetoric as the study of effective techniques of persuasion is not incompatible with the critical ideal of reasonableness upheld in dialectics. Others maintain that there are fundamental differences between a rhetorical and a dialectical conception of reasonableness, but see no reason to regard the rhetorical conception as inferior to the dialectical conception.

The rehabilitation of rhetoric goes together with a general acknowledgement that the non-rhetorically oriented theories of argumentation are saturated with insights from classical rhetoric. It is striking that the rise of rhetoric has progressed almost simultaneously in different countries.²⁰ The survey *Contemporary perspectives on rhetoric* by Foss, Foss and Trapp (1985) discusses most of the works that have contributed significantly to the resurgence of rhetoric in the United States. Farrell (1977) and McKerrow (1977, reprinted 1992) in particular have defended the

¹⁹ Ducrot and Anscombe’s theory has been the basis for carrying out empirical research regarding the interpretation of sentences. See, for example, Bassano (1991) and Bassano and Champaud (1987a, 1987b, 1987c).

²⁰ For a more elaborate discussion of recent developments in the rhetorical approach to argumentation, see van Eemeren et al. (1996: 189-212, 345-349).

rational qualities of rhetoric. Rhetoric is also given its due by Wenzel (1980, reprinted 1992), but emphatically in relation to logic, and primarily dialectics.

In France, it is first of all Reboul who is responsible for giving rhetoric a fully-fledged position in the study of argumentation. In 'Can there be non-rhetorical argumentation?' (1988) he discusses the rhetorical characteristics of argumentation: its formulation in ordinary language, its orientation to an audience, the probability (at best) of its premisses, the lack of logical necessity in the connection between its premisses and its conclusion. Although Reboul (1990) regards rhetoric and dialectic as two different disciplines, they do exhibit some common traits. Rhetoric is dialectic applied to discussions of social issues; at the same time, dialectic is part of rhetoric, because it provides rhetoric with its intellectual instruments.

In Germany, Kopperschmidt goes a step further. In a sequel to an exploratory article on the relation between rhetoric and argumentation theory (1977), he contends that rhetoric is *the* subject of research in argumentation theory. This agrees with the historical view of rhetoric (ed., 1990). The Austrian Kienpointner (1991b) offers an even more radical reevaluation of rhetoric: he defends a relativistic conception of reasonableness and contends that rhetoric constitutes the most productive instrument for resolving social dissension.

In the Netherlands, Braet has been active in stimulating rhetoric. In *De klassieke statusleer in modern perspectief* ('Classical theory of status in modern perspective'), he emphasizes the importance of the classical theory of status for modern argumentation studies (1984). He illustrates his point by comparing this classical theory with the theory of stock issues in American academic debate.

9. Other significant approaches

Each of the approaches to argumentation discussed up to this point has been explored in a comprehensive research programme. Other recent contributions to the study of argumentation may be equally interesting, but they are less focused on developing a general theory of argumentation, more limited in scope, less elaborated, or not accessible in English. To conclude our survey, we shall mention a few.

First, there are the Swiss logician Grize and his colleagues Borel, Miéville, Apothéloz and others, who have been developing a theory of 'natural logic' at the Centre de recherches sémiologiques of the University of Neuchâtel.²¹ Their main motive has been dissatisfaction with formal logic. Natural logic is designed for everyday discourse as it manifests itself in advertisements, political addresses, et cetera. Without assuming any a priori normative concepts of 'truth' and 'validity', natural logic aims to expose the 'logic' of such argumentative texts. The term *logic* here refers to the commonplaces (*topoi*) and rules used in everyday argumentation

²¹ See Grize (1982), Borel, Grize and Miéville (1983), Borel (1989), and Maier (1989). For a more elaborate discussion of natural logic, see van Eemeren et al. (1996: 322-328).

and reasoning, not to the formal logical systems for deductively valid reasoning. Relying on abstract 'schematizations' of persuasive forms of presentation and on discursive logical operations instrumental in the creation or elimination of contradiction or inconsistency, natural logic gives a description of argumentative language use.

Second, there is the *Unité de Linguistique Française* at the university of Geneva, a research group of Francophone Swiss pragma-linguists. Since the beginning of the eighties they have devoted themselves to giving pragmatic descriptions of French markers (pragmatic connectives, modal adverbs, illocutionary verbs) within a general model of discourse structure. The group includes Auchlin, Egner, Luscher, Perrin, Moeschler, (Anne) Reboul, Roulet, Schelling, and de Spengler. Their pragmatic studies are influenced by speech act theory, Ducrot and Anscombe's Radical Argumentativism, and Goffman's symbolic interactionism. An essential characteristic of their approach is that speech acts are not examined in isolation, but in their relations with other speech acts in a discourse. Making use of Sperber and Wilson's theory of relevance, they have recently added a cognitive component to the "Geneva model", which distinguishes between different levels of the discourse, describes the relations between these levels, and indicates which linguistic markers may be indicative of the various relations.²²

Third, there is the theory of 'problematology', developed in the early eighties by the Belgian philosopher Meyer both in order to solve philosophical problems and as a model for argumentation.²³ In his skeptical attitude towards formal logic, Meyer shows himself a true disciple of Perelman, his teacher at Brussels Free University. According to Meyer, the function of argumentative discourse is, on the one hand, to provide an answer to a specific problem in a specific context. On the other hand, argumentation can also be seen as the 'problematizing' of an answer; that is, as the recognition of the question contained in a given answer. In non-formal reasoning there is no guarantee that a posed question will not remain an open question, and final answers are not to be expected: they can only be given in the formal language of a logic in which there is no room for doubt or contradictory propositions. In problematology, there is only room for a non-formal logic governing 'nonconstraining reasoning' (1986a: 130-131).

Fourth, there is the German argumentation tradition.²⁴ Its most prominent representative is Kopperschmidt, whose normative approach to argumentation combines insights from classical rhetoric with insights from speech act theory, text

²² See, for example, Roulet et al. (1985), Moeschler (1982, 1989a, 1989b), Anne Reboul (1988), Luscher (1989), and also van Eemeren et al. (1996: 35-351).

²³ See Meyer (1982a, 1982b (English translation 1986a), 1986b) and van Eemeren et al. (1996: 343-344).

²⁴ For a survey, see Kienpointner (1991a). See also van Eemeren et al. (1996: 341-343, 347-348, 350, 354-355).

linguistics, and Habermas's theory of communicative rationality.²⁵ Habermas's influence is equally apparent in the work of the linguistically and descriptively oriented German theorists who attempt to apply speech act theory and conversation analysis to spoken and written argumentative discourse.²⁶ Their work has been strongly influenced by Toulmin too.²⁷ Another German contribution to the development of argumentation theory is the dialogue logic of the Erlangen School of Lorenzen *cum suis*, which is fundamental to Barth and Krabbe's formal dialectics and has already been mentioned in section 5.²⁸

Fifth, there is the richly varied American tradition in the field of speech communication, with prominent scholars such as Willard, Zarefsky, and Goodnight. Willard has developed a social-epistemological approach to argumentation based on insights from phenomenology, symbolic interaction and constructivism. In his view, argumentation is a form of conversation ensuing from differences of opinion; the interaction between arguments is a source of human knowledge.²⁹ By other American rhetoric and communication scholars argumentation is approached with divergent interests. A useful survey of the main contributions to the various areas is offered by Benoit, Hample and Benoit in *Readings in argumentation* (eds., 1992). This collection includes classical articles by (Pamela) Benoit, (William) Benoit, Brockriede, Burleson, Ehninger, Gouran, Gronbeck, Hample, Jackson, Jacobs, Kneupper, McKerrow, (Daniel) O'Keefe, Rowland, Trapp, Wallace, Wenzel, Willard, and Zarefsky. Some of these names have already appeared in earlier sections of this survey.

Last but not least, there are numerous authors who, from various theoretical starting points, have given special attention to specific topics: validity, unexpressed (or implicit) premisses, argumentation schemes, argumentation structures, fallacies, relevance, cognitive processing of argumentative discourse, acquisition of argumentative skills, teaching of argumentative skills, conversational argument, field-dependent argumentation, and intercultural argumentation. On most of these topics vast numbers of publications have appeared.

²⁵ See Kopperschmidt (1978, 1980, 1989). For a brief discussion in English of Kopperschmidt's ideas, see Kopperschmidt (1985, 1987) and van Eemeren et al. (1996: 342-343).

²⁶ For the remarkable influence of Habermas on speech communication in the United States, see the special issue of the *Journal of the American Forensic Association* (1979), with contributions from Burleson, Farrell, and Wenzel. See also Doxtader (1991).

²⁷ For Habermas's influence, see, for example, Berk (1979); for Toulmin's influence, Göttert (1978), Quasthoff (1978), Völzing (1979), Öhlschläger (1979), and Kienpointner (1983).

²⁸ For an introduction to dialogue logic, see Lorenzen and Lorenz (1978) and van Eemeren et al. (1996: 253-262).

²⁹ See Willard (1979a, 1979b, 1983, 1989), and also van Eemeren et al. (1996: 197-198).

10. Epilogue

Without making any claim to being exhaustive, we think that the following tendencies are worth noting in the study of argumentation during the last two decades:

(1) A growing interest in developing a fully-fledged theory of argumentation among scholars from a variety of disciplines. This interest manifests itself internationally in publications by philosophers and logicians, rhetoric and communication scholars, linguists and discourse analysts, lawyers, psychologists and other social scientists. It is accompanied by an increased awareness of the need for multidisciplinary and interdisciplinary collaboration.

(2) A keen interest in the prospects that recent developments in formal logic, especially in dialogue logic, may have to offer for the study of argumentation. This interest is usually coupled with a realistic appreciation of the limitations of a formal approach when dealing with the peculiarities of genuine argumentative discourse. It expresses itself in various kinds of dialectical approaches to argumentation that have resulted in several models for analysing argumentative discourse.

(3) A spectacular reevaluation of the importance of rhetoric for the study of argumentation. This reevaluation has led to the realisation that a dialectical approach to argumentation, even if it is primarily normative, and a rhetorical approach, even if it is primarily seen as descriptive, need not necessarily be at loggerheads. Since it has become clearer to many that rhetoric is not by definition related to effective though often irrational persuasion techniques, the idea has gained ground that studying rhetoric may lead to beneficial insights concerning the reasonableness of argumentation.

(4) An increased empirical interest in how argumentative discourse is conducted in various kinds of argumentative practices or fields. Such practices can be highly institutionalised, as in the case of most judicial argumentation, but they can also be more or less informal. Paying special attention to the linguistic means that are brought to bear in the execution of specific argumentative practices, detailed studies have been undertaken or are being undertaken into the characteristic features of academic discussions, mediation talks, policy making and negotiation. Besides field-dependent argumentative conventions, the intercultural differences in argumentation styles seem to have become another focus of attention.

(5) A renewed interest in “old” theoretical concepts such as ‘relevance’ and the ‘fallacies’, which are crucial to the development of an adequate theory of argumentation. Argumentation theory can only live up to its practical ambitions, if a satisfactory treatment can be given of these concepts. After Hamblin’s devastating critique of the logical “Standard Treatment” of the fallacies, various new approaches have evolved. These approaches tend to be much broader in scope than the logical Standard Treatment and they are usually in a dialectical vein.

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