

ARGUMENTATION

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Series Editors:

John W.M. Verhaar
Gonzaga University
Spokane, WA

&

Werner Abraham
University of Groningen
The Netherlands

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Volume 8

E.M. Barth & J.L. Martens (eds.)

Argumentation: Approaches to Theory Formation

ARGUMENTATION
APPROACHES TO THEORY FORMATION

Containing the Contributions to the
Groningen Conference on the Theory
of Argumentation, October 1978

edited by
E.M. BARTH & J.L. MARTENS
University of Groningen

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CONTRIBUTORS

- L. Apostel, formerly professor of philosophy, University of Gent, Belgium.
- E.M. Barth, professor of philosophy, State University of Groningen, The Netherlands.
- F. van Dun, lecturer of law, University of Gent, Belgium.
- Arnold Günther, lecturer of linguistics, Technical University of Berlin, W. Germany.
- Carl H. Heidrich, lecturer of linguistics, University of Bonn, W. Germany.
- Jaakko Hintikka, professor of philosophy, Florida State University (Tallahassee), U.S.A.
- Merrill B. Hintikka, professor of philosophy, Florida State University (Tallahassee), U.S.A.
- Rüdiger Inhetveen, lecturer of philosophy, University of Erlangen-Nürnberg, W. Germany.
- Erik C. W. Krabbe, lecturer of philosophy, State University of Utrecht, the Netherlands.
- Ulrike Leopold-Wildburger, lecturer of mathematics, University of Graz, Austria.
- Kuno Lorenz, professor of philosophy, University of Saarland at Saarbrücken, W. Germany.
- P. Lorenzen, formerly professor of philosophy, University of Erlangen-Nürnberg, W. Germany.
- Arne Naess, formerly professor of philosophy, University of Oslo, Norway.

PREFACE

What can philosophers, linguists, and communications theorists do in order to promote a climate of discussion, preferably world-wide in the end, and improve the quality of discussions?

These were the questions and the long-term goals for the sake of which a number of scholars from other countries, as well as scholars from Dutch universities, were invited to come together at Groningen, The Netherlands, in 1978. The plan for such a conference met with immediate sympathy and support from the Groningen State University, and from the philosophical faculty there, for which we were, and are, very grateful.

Our short-term aspiration was to bring together a number of persons in a primarily non-combative and non-competitive atmosphere, in order to see whether some degree of synthesis between competing research programmes would be feasible. Obviously it is not possible to find that out in the course of a mere three days. We do hope, however, that the present volume will be of value in assessing the extent to which such a synthesis is feasible and, to be quite honest, we even hope that this collection of contributions may cause some of its readers to take steps in the direction of such a synthesis themselves.

The times being what they were, we had to make do with a very limited budget. To ensure that all types of contributions to the field were represented would not have been financially possible. Hence it was necessary to select a certain viewpoint from

which to work in organizing the conference.

In the budding discipline that should, in our opinion, be called the Theory of Argumentation, three theoretical phases may be distinguished. Each new phase allows for another definition of the very word "argumentation". In explaining this, let us start from the influential research programme called phenomenology. Edmund Husserl himself was primarily, though not exclusively, interested in the -- his own term -- "pre-predicative" phases of cognition. His quest for "foundations" of cognitive content had nothing to do with argumentation even in the weaker sense. Phase One of the theory of argumentation consisted in taking the step from this search for a pre-predicative foundation of a conviction, belief, theorem, or point of view, to the *justification* of an overt position (cp. S.E. Toulmin 1958). In Phase Two the justification is related to the specific concessions of an *audience* (Ch. Perelman and L. Olbrechts-Tyteca 1952), however the verbal reactions of the audience are not yet considered in detail, and the interplay of locutions is not analysed. Let us call this *the rhetorical stage* of the theory of argumentation.

In Phase Three the justification is analytically related to the audience's verbal reactions, and vice versa. 'The audience' now figures theoretically as an active partner in a discussion between two (or more) parties or *dialectical roles*. The interplay -- or, as Kant says in his Table of Categories, the *Wechselwirkung* -- between the locutions of these two (or more) dialectical roles will be called *the dialectical stage* of the theory of argumentation.

The development can be described as one from Idea (and Judgment) *via* -- public -- Meaning, and later, Sentence (Alston 1964, Hacking 1975), to the focal notion of a *Sequent* or *ordered pair* (*triple*,...), of the sets of locutions that, at a certain stage

of some dialogue, characterize the two (or more) parties, or their roles, in that dialogue. The third, or dialectical, phase in argumentational studies is that in which the theoretician, more or less consciously and more or less explicitly, is discussing *operations on sequents*. Such studies may be purely descriptive and empirical, in which case they may or may not be related to linguistic studies, or they may be normative, in which case they may be related to logic, ethics, and social affairs generally. Or they may be both at the same time.

We decided to devote the conference to the third, or dialectical, phase in argumentational studies. Even so we were not able to invite all the important contributors to the field, not even those within Europe. To our sincere regret, some of the invited speakers were, for one reason or another, unable to attend the conference. One of them was Arne Naess. Since the conference quite possibly would never have been thought of, had it not been for his inspiring influence, years before, it may seem strange that we went along with our preparations rather than wait another year; however, the financial situation at the universities being as it was, we deemed it wiser to carry out the plan immediately.

During the conference one of the participants emphasized that whereas there is no possibility of overlooking the practical importance of truth (or, we take it, of competing notions, such as agreement - eds.), truth alone is not enough. In philosophy as well as in daily life we also need a second value, viz. *relevance*. Argumentation is a human activity and instances of argumentation are, as all human activities, more or less "good" or "bad" (for someone, or, mediately, for something). When, in the discussion that followed, one of the participants pointed out that the sub-formula principle is a principle of relevance, the former

speaker retorted that as a principle of relevance in her general sense (of moral, of epistemic, and of general cultural relevance), the sub-formula principle is hardly of importance. Apart from the problem of the relevance of instances of argumentation to ethical goals she also threw up the still more involved topic of *creativity* in argumentative communication. The notion of a sentence which, given a certain argumentative situation, is in all respects appropriate, relevant in the technical sense of the word, yet *novel* in a sense in which a sub-sentence is not, certainly seems to be a realistic one.

This conference did not itself contribute to an analysis of what constitutes "appropriate, but novel and valuable" arguments. However, several among its participants have, in one way or another, demonstrated in writing that their involvement with other theoretical questions concerning argumentative uses of language is deeply rooted either in moral concerns, or in epistemic concerns, or in both. These earlier -- in a couple of cases, later -- publications should be seen as the background of the Groningen conference, or as connected with that background. These publications may be found in the bibliography at the end of this volume.

A small number of persons who had been invited to this conference and who had expressed their interest in participation were, for various reasons, unable to come. Two of them -- Arne Naess and Frank van Dun -- sent us their contributions afterwards. We decided to treat their contributions as if the authors had been present in person.

The papers have been put into five relatively coherent groups. With respect to the first of these groups, which we have called *Re-modelling logic*, we finally decided to put the papers in the order in which the authors' first contributions to argumen-

tational studies (or to closely related studies) appeared in print. A chronological bibliography, which is intended to be complete (concerning argumentational studies) with respect to the contributors to this volume, but not with respect to other authors, is added at the end of the book (pp.295-333). It was compiled by Mr. A. van Hoof, graduate student of philosophy and argumentation theory in the University of Groningen, and for this we are very grateful to him. Our thanks are due also to Ms. C.A.M. Roy and especially to Mr. R. North, who went through the English texts from a linguistic point of view.

E.M. Barth

J.L. Martens

The editors of the series in which this volume is appearing, and the publishing house as well, have requested some kind of introductory text connecting the papers. I am glad to comply with their wish. In order not to dominate the volume too much I have kept these pieces as short as possible, but have arranged that a chronological bibliography was compiled which shows the development of the field better than I could do. By grouping the papers together in what I hope is a systematic manner (there are, of course, strong overlaps between the groups), and by asking those authors who had not done so already to produce clarifying subtitles throughout their papers, it was possible to keep the introductions short.

E.M.B.

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PART ONE:
RE-MODELLING LOGIC

INTRODUCTION TO PART ONE: RE-MODELLING LOGIC

The name of this largest batch of papers may speak for itself, but let me try to unpack it anyway. Contrary to what some writers on questions of argumentation seem to imply, in the present writer's opinion there can be no kind of theory of "rational" argumentation that does not take systematic account of the science called formal logic. On the other hand, formal logic in its present representations has not yet had the broad cultural value-in-use one could hope for. The papers in this batch all deal with or refer to this fact, in one way or another.

Pro et contra dicere

In the nineteen-forties, Arne Naess wrote the first version of a book he called, in Norwegian, *En del elementaere logiske emner* - "Some elementary topics in logic". More recently it was published in English under the title *Communication and Argument* and later also in German and Dutch, under similar titles. The Swedish translation, however, was called *Empirisk semantik*, "Empirical semantics". These shifts of title, from "logic" to "semantics", "communication" and "argumentation", indicate that the author considers not only communication, but also the more specific phenomenon of *argumentation* as a topic, and even as perspective, in *semantics*. His pretensions as he describes them in this little book were, however, modest: "It is not my intention

to introduce the readers to a new field." The description of his general outlook that I am giving here is, I believe, nevertheless quite adequate. His oeuvre as a whole permits one to speak of an argumentational, or argumentative, outlook on semantics. This "argumentational semantics" has two main goals: *understanding* through a clarification of language, and *penetration to the center of a conflict of opinions*, through elimination of pseudoc-conflicts and through analysis of arguments *pro et contra* as well as *pro aut contra* the competing standpoints (c.q. the competing attitudes to a standpoint).

In his preface to a recent edition of this book Naess wrote: "I still am of the opinion that elementary logic is most fruitfully studied when it is undertaken as a study of the role played by language in the pursuit of a logically clear exchange of opinions." His conclusion: in a textbook on elementary topics in logic, "one ought to focus on sources of misunderstanding in practice, rather than on cases of sinning against the rules of formal logic. For this reason rules for 'pleading for and against' (*pro et contra dicere*) are discussed extensively...". In the nineteen-forties, and even in most contemporary textbooks and monographs, formal logic was one thing and *pro et contra dicere* another.

In 1959 another event took place which changes this situation at least in principle: the birth of Paul Lorenzen's dialogue approach to first-order predicate logic ("elementary formal logic"). This was preceded by E.W. Beth's method of semantic tableaux in 1955, followed by his (Beth's) method of deductive tableaux (1959).

Since then, formal logic can be studied in terms of *pro et contra dicere*. Nevertheless, Naess' work and that of Lorenzen and Lorenz are complementary, in the following sense. Whereas Lorenzen and Lorenz are concerned with those sentence constituents

which are called "logical constants", such as connectives and quantifiers, Naess' rules and recommendations either pertain to whole sentences, to non-logical constants, or to components of sentences containing non-logical constants. In addition to *pro et contra dicere*, he is concerned with problems of interpretation and clarification. In their analysis on "dialogue logic" Lorenzen and Lorenz are exclusively concerned with criticism and defense, on the basis of fixed meanings-in-critical-use, formulated for the first time by Lorenzen in 1958, 1959, of the logical constants. Obviously each of these pursuits is not only "legitimate", as one says, but absolutely indispensable in a comprehensive Argumentology. To (mis)interpret is no less, and no more, important than to criticize, and to find more precise formulations so as to prevent or eliminate certain interpretations of a locution is no less, and no more, important than to defend it against certain critical moves. Both interpretation/clarification and criticism/defense must be based on a semiotics whose fundamental notion, or *Leitmotif*, is, or can be, related to a sequent (Con,T) -where T is a thesis and Con a class of concessions- as well as to a pair of users of language, in short to what Barth and Krabbe call a "conflict of avowed opinion" (1978,1982).

What is semantics?

Jaakko Hintikka distinguishes between *dialogue games* and *semantical games*. Dialogues are, as he says, intra-linguistic activities, hence dialogue games are parlour games, or "indoor games". A semantical game, however, is not a parlour game at all, but an "outdoor game" more like hide-and-seek, and should not be studied as a variety of conversation. Rather conversation, at least part of conversation, should be understood as rooted in *semantic activities* (my term -E.M.B.) constituting non-verbal games against Nature.

What Hintikka implies (but does not explicitly say, to my knowledge) is, I think, extremely right and extremely important, namely that the habit of logicians, old and new, of basing logic as well as their philosophy of language on some kind of "ontology" -that is to say, on things, properties and values that "are there", potentially or actually, in some "domain" or other- this habit should give place to a semantics in terms of the *human activities* of seeking and finding.

Many people, however, including the present writer, have had difficulties in getting a firm grasp on the differences which Hintikka claims to see between Lorenzen's and Lorenz' "games" and his own "semantical games". Hintikka describes what he calls semantical games as "... games against a recalcitrant Nature who tries to frustrate my attempts" (below). This he offers in the place of "ontology", of whichever kind -Tarski's, Quine's, or Aristotle's. Hintikka here prefers to follow Kant, who held, Hintikka says, "that our ways of reasoning about existence, especially about interindividual existential inferences, must be grounded in the human activities through which we come to know the existence of individuals" (second paper below). "However Kant went astray in identifying the activities through which we in fact come to know the existence and non-existence of individuals...". Technically it seems of little importance whether one chooses to speak in terms of an ordered couple (*myself, Nature*) or in terms of an ordered couple (*the Proponent, the Opponent*). It is philosophically important that both concepts (concept pairs) and both nomenclatures can be subsumed under a view of the structure of rationality that is based on the notion of *an ordered couple of logical roles*, the most general characterization of which would be (*Role₁, Role₂*). Earlier logic and philosophy distinguished only one logical role, the role of the Thinker, also called *the Subject* of a process of ratiocination.

The new two-role conception should, I presume, be broadened to n-party games -dialogical or semantical- based on a distinction on n logical roles, for some n greater than 2 (see contribution by Leopold-Wildburger, this volume).

There is a difference as to background and scientific and philosophical interests and focus. Hintikka's interests are with epistemic logic (Hintikka 1962), contemporary linguistics and main-stream (American) philosophy of language. On the other hand, Naess, Lorenzen, and also Apostel, who is inspired by Perelman, are geared not toward linguistics but toward social and political problems and their involvement with questions of intersubjective human understanding. This leads them to see human interaction, verbal or other, as constituting the essence of semantics, whereas the human activities with which Hintikka replaces the usual ontology-based semantics are solitary games-against-Nature, capable of definition in terms of the strategies of a single human brain. *All* of them are, in some way or another, oriented toward activity of one kind or another, rather than toward ontology ("what there is"). Leopold Apostel has been active in the budding theory of argumentation for a long time. He is very well versed in the research done by Perelman and Olbrechts-Tyteca as well as in the more logic-oriented approaches represented here. This enables him to compare and to take a universal overview. This overview takes into account a number of publications and authors that are not otherwise represented here -except indirectly, by their influence on the authors of this volume. His own position is an intermediate one between the emphasis on empirical research into persuasive argumentation of the former school, and the formal analyses and suggestions for regimentation in studies that are rooted in an interest in questions of validity (or, as one often says, in the possibilities of a distinction between "rational" and

"irrational" argumentation). -- In connection with Apostel's distinction of "global" versus "local" attributes of discussion, Jürgen Habermas might also be mentioned, as a much read author who is interested in certain global features of discussion (and, it seems to me, only in global features).

In Note 8 Apostel promises us a future synthesis of Lorenzen/Lorenz' results and those of Hintikka. The paper contains a definition (p. 98) of a very general concept 'discussion', which should be compared with Günther's definition (p. 175 ff.), and with the various implicit definitions of concepts of discussion in this volume.

The short paper by Krabbe in this section formed the introduction to the conference. He suggests a number of working-rules and points of departure that may be helpful in structuring, or at least in clearing the ground before theoretical action takes place.

In the last paper in this group, Inhetveen shows how to take the mystery out of "possible-worlds" semantics so as to render this highly fruitful formalism conceptually accessible to students of argumentation.

It is to be hoped that the various academic networks to which our authors belong, and which until now have had little or no contact with one another, will be able to free themselves from their academic isolation to the benefit of normative studies of argumentation and of semantics based on human activities. The editors of this volume would like to think that the chronological bibliography offered here (p. 295 - 333) may be instrumental in this respect. This isolation is no doubt the outcome mainly of the diversity of the languages in which the various contributions were presented, which has prevented them from being known worldwide: English, French, German, Dutch, and, worst of all, Norwegian.

A NECESSARY COMPONENT OF LOGIC: EMPIRICAL ARGUMENTATION ANALYSIS

Arne Naess

1. Logic has empirical components and needs empirical research

The use in argumentation of the calculus of propositions, or of Alfred Tarski's theory of truth, or of any other formal logical instrument involving the terms 'true' and 'false', presupposes some sort of agreement or similarity between formal usage and common usage. This relation is an empirical relation not adequately revealed through intuition, but capable of being increasingly clarified through painstaking research, applying research instruments of contemporary social science.

What holds good of formal theories involving 'true' and 'false', holds good of the logical constants and the primitive terms of the so-called philosophical logics. In this talk I shall not elaborate upon the use of terms, but attack a broader subject, that of empirical components in argumentation analysis. In my view there is a startling difference in quality between the treatment of formal and empirical components of problems raised¹.

Empirical questions are largely 'solved' through appeal to intuitions of a low degree of testability. The terms 'true' and 'false' are used in argumentation, and one may try to single out their various usages by means of empirical research. In one analysis, I did not succeed in reducing the usages to less than 13 different kinds.

In what follows I shall mention some useful conceptualizations in argumentation research.

2. '*Argumentation analysis*'

This term may cover a large variety of approaches, but I shall confine myself to one kind of approach among the many. It is characterized primarily by a painstaking way of treating certain empirical questions that arise when one studies cases of explicit argumentation. Cases of explicit argumentation usually occur as parts of discussions and debates, sometimes of a rather polemical kind. In order to deal with these empirical questions scientifically, we must try to use history, psychology, sociology, political science, etc., as auxiliary disciplines, as well as common sense and what we experience in daily life. In empirical argumentation analysis, cases of argumentation are studied as acts or processes of communication between people and carefully recorded in observational journals. (Today televised debates furnish rich intersubjective material.)

The approach to argumentation analysis I shall talk about here specializes in investigating the superbly *open and deep* kind of argumentation. It should, in my opinion, characterize philosophical research. In philosophy the chain of arguments is never cut off for good where it is traditionally cut off, be it because nobody so far has asked further questions, or because practical people or scientists say it is pointless to continue. I am thinking here of chains, for instance, of the following kind: "Why do you hold that p?" --"Because q"; "Why do you hold that q?" --"Because r";... . The "Deep and Open" approach to argumentation legitimizes continuation of the chain as long as the questioner can clarify what it is that he asks us to answer. This characteristic sets the approach apart from psychological and sociological studies of communication, and also from most classical and modern studies of rhetorics and debate. Increased collaboration with other

approaches is not only possible, however, but highly desirable.

The approach is different from, but of course not incompatible with those largely inspired by formal logic, such as that of Paul Lorenzen. An example of an argumentation rule of his approach: If a person says $p \ \& \ q$, it is sufficient to refute $p \ \text{or} \ q$ in order to refute him, but if he says $p \ \vee \ q$, one then has to refute *both* p and q . Empirical studies do not start with propositions, but with *utterances in concrete situations*. The functions of the utterances are normally complex, having relevant performative aspects, but careful analysis may result in 'distilling' p 's and q 's appropriate for formal treatment.

A pronounced empirical approach such as the one I am advocating does not exclude theory-construction. Botany is empirical yet contains, and also presupposes, theory-construction. Debates, perhaps even more than flowers, inspire deep reflection!

3. *Options in a clarification and assessment game*

One way of describing rules in use in discussion (here between two persons, A and B) that are intended *to clarify and to assess* arguments in terms of options, is as follows. ('T', 'U' stand for utterances in the form of declarative sentences.)

(1) A: T

(2) B: (2.a): Yes (2.b): No

(2.c): Please be more precise!

(2.d): Please be more understandable but within
the framework of preciseness relations!

(2.e): Announce kind of claim. Three options: the
sentence was meant:

1. Not entirely as a clarification-assess-

ment (but, e.g., as a somewhat performatory, persuasive, rhetorical, exclamatory, hortatory ... remark).

or: 2. As a theory-formulation; or as a factual, descriptive, observationally-true claim; or as a correctness claim; or as a theoretical acceptability claim; or

or: 3. As a postulational contribution; as an invitation to accept a statement for the sake of the discussion.

(3) A: (3.a) as a reaction to (2.a): T_1
 (a tentatively more precise formulation, put forward by A in order to test whether there is real agreement of some kind or other -- see Section 4).

(3.b) as a reaction to (2.b):

1. Pro-argument 'pro₁'

or: 2. Tentative reformulation: U, where $\text{Syn}(A, T, U)$
 (i.e., U is synonymous with T for A)

or: 3. Tentative 'precization': T_1

⋮

(3.c) as a reaction to (2.c): T_1

...

From this kind of scheme it is clear that the options are many at each stage of a discussion. Furthermore, the number of 'correct' or constructible courses of discussion increases very rapidly with the number of stages. As early as stage (3), the number of possible discussion situations is perhaps of the same order as it would be in a game of chequers.

In the next section of this talk, I shall concentrate on the move "Please be more precise!", either as a move made by the receiver, or as a move by the speaker who makes his or her formulation more precise in order to test (i.e., confirm or disconfirm) an argument for agreement or disagreement.

4. *Analysis of agreement and pseudo-agreement*

Let us consider the following discussion, which is the shortest possible specimen of a class of very common discussions, to be called "discussions of type D_1 " (with " A_1 " and " A_2 " used as values for the participant-variables "A" and "B"):

- (1) A_1 : The newspaper is thin today.
- (2.a) A_2 : Yes. (2.b) A_2 : No.
- (3) A_1 : I mean, the newspaper has few pages today.
- (4.a) A_2 : I agree. I thought you meant that the newspaper contained little news.
- (4.b) A_2 : I disagree: the newspaper does *not* have few pages. I thought you meant that the newspaper contained little news.

Let me introduce three abbreviations:

- T_0 : The newspaper is thin today.
 T_1 : The newspaper has few pages today.
 T_2 : The newspaper contains little news today.

With "syn" for "is synonymous to", and "-T" for negation of T, the above discussion may be rendered as follows:

Discussion, type D₁(1) A₁: T₀(2.a) A₂: T₀(2.b) A₂: -T₀(3) A₁: T₀ syn T₁(4.a) A₂: T₁, T₀ syn T₂(4.b) A₂: -T₁, T₀ syn T₂

A person A₁ sends the declarative sentence T₀ to another person, the receiver A₂. A₂ sends back his utterance of agreement or disagreement with T₀. Concerning the verbal usages of A₁ and A₂, we know: For A₁, T₀ is synonymous with T₁, but not with T₂. For A₂, T₀ is synonymous with T₂, but not with T₁. It is reasonable to assume that, for each of them, T₁ as well as T₂ is more precise than T₀.

The following diagram is to be read horizontally, starting from above:

"If A₁ takes T₁ to be true (which he, as the sender, does in any case), and A₂ takes T₁ and T₂ to be true, then there is verbal agreement at (2.a) and real agreement at (4.a). If A₂ takes T₁ to be true and T₂ to be false, then there is verbal disagreement at (2.b) and real agreement at (4.a). Furthermore, there is verbal pseudo-disagreement at (2.b). If A₂ takes T₁ to be false and T₂ to be true, there is verbal agreement at (2.a) and real disagreement at (4.b). Furthermore, there is pseudo-agreement at (2.a). If A₂ ... "

A ₁		A ₂		Agreement-relation:		
T ₁	T ₁	T ₂	verbal?	real?	pseudo?	
t	t	t	a	a		t - true
t	t	f	d	a	d	f - false
t	f	t	a	d	a	a - agreement
t	f	f	d	d		d - disagreement

Suppose this type-D₁ discussion has ended at step (4.a). Conclusion: There is real agreement between A₁ and A₂. *But only relative to step (4.a).* Let us suppose the discussion starts again, A₁ repeating T₁ as a step (5) and A₂ repeating T₁ as a step (6.a). After these moves, A₁ reveals a little more about what he means by T₁, and the discussion takes on the same color as before:

(7) A₁: T₁ syn T₁₁

(8.a) A₂: T₁₁, T₁ syn T₁₂ (8.b) A₂: -T₁₁, T₁ syn T₁₂

If this second instalment of the discussion ends at step (8.b), then it ends with real disagreement in relation to (8.b), and with pseudo-agreement in relation to steps (2.a) and (4.a).

Example:

(7) A₁: I mean, the newspaper *available here* today has few pages.

(8.b) A_2 : I disagree. I thought you referred to the newspaper with today's *date*. (I got my copy in the city. It really has few pages.)

The diagrammatical representation is similar to the foregoing one:

A_1	A_2		Agreement-relation:		
T_{11}	T_{11}	T_{12}	verbal?	real?	pseudo?
t	t	t	a	a	
t	t	f	d	a	d
t	f	t	a	d	a
t	f	f	d	d	

Discussions of type D_1 may continue indefinitely. As a consequence of the steps taken, agreements and disagreements will be realized, as follows:

At the end of step (4.a),

we may conclude:

there is real agreement between A_1 and A_2 about T_0 .

At the end of step (8.b),

we may conclude:

real disagreement about T_0 ;
pseudo-agreement in relation to steps (2.a) and (4.a).

At the end of step (12.a),

we may conclude:

real agreement about T_0 ;
pseudo-disagreement in relation to step (8.b).

5. *Degree of definiteness of intention (discrimination acuity) as a factor in argumentation*

The simplest way in which the *finite degree of the speaker's definiteness of intention* influences patterns of argumentation (e.g., with the D_1 pattern) runs as follows: At stage (2), participant B asks A whether by expression T_0 he means (the same as by expression) T_1 or (expression) T_2 . At stage (3), A answers that he has not made, or that he does not make this distinction. B then stops the D_1 -type discussion at stage (4), because if T_1 were meant his answer would be "Yes", whereas if T_2 were meant it would be "No". B may take the initiative in a new discussion: How would A justify not making the distinction?

In our example of a D_1 -discussion (Section 4), A_2 may at step (4) say: "I did not think of the distinction between being physically thin and being journalistically thin!" A_2 's *degree of discrimination* stops short of a distinction between T_1 and T_2 . A_2 may admit the relevance and validity of this distinction, and may take a stand on it. In that case the discussion may continue.

In many cases the instigator of a discussion *must* have thought about a certain distinction, we would say. Consider the following start of a discussion (not belonging to the class D_1):

- (1) The General: Our glorious attack on the enemy starts tomorrow at 5 o'clock.
- (2) The Major : Herr General, do you mean 5 o'clock in the morning or 5 o'clock in the evening?
- (3a) The General: Alas, that distinction did not occur to me.

The General's answer is clearly relevant for the communica-

tion intended by him. In other cases, the relevance of a question can be disputed; in still other cases, a question is clearly irrelevant. To give an example in which the relevance is disputable:

(3b) The General: Of course at 5 in the morning.

(4a) The Major : By "glorious", Herr General, do you mean...?

(5) The General: Irrelevant! (And irreverent?)

Here is a case of clear irrelevance:

(4b) The Major : Taking note of Einstein's rejection of absolute time, may I ask the General whether by "5 o'clock" he means ... ?

(5) The General: Irrelevant!

6. *The hermeneutical spiral as a factor in argumentation*

Suppose at step (2) B expresses disagreement with A, and that A then continues the debate, offering a first *pro-argument*. It sometimes happens that, in the light of that *pro-argument*, B changes his *interpretation* of the initial formulation, T_0 , and now accepts it. The *pro-argument* then has a *retroactive effect*. Generally, every move of the participants may have retroactive effects.

In discussions of great and complex systems of thought, retroactive effects are indispensable and decisive. An all-embracing system of thought intends to color everything (including the very principles of argumentation). Starting from the sentence of the system that is offered as No. 1 (e.g., in a book), there is no way yet of explaining it adequately to the outsider. But going back to it again and again as one reads more of the text, one usually supposes that a (non-continuous) development of under-